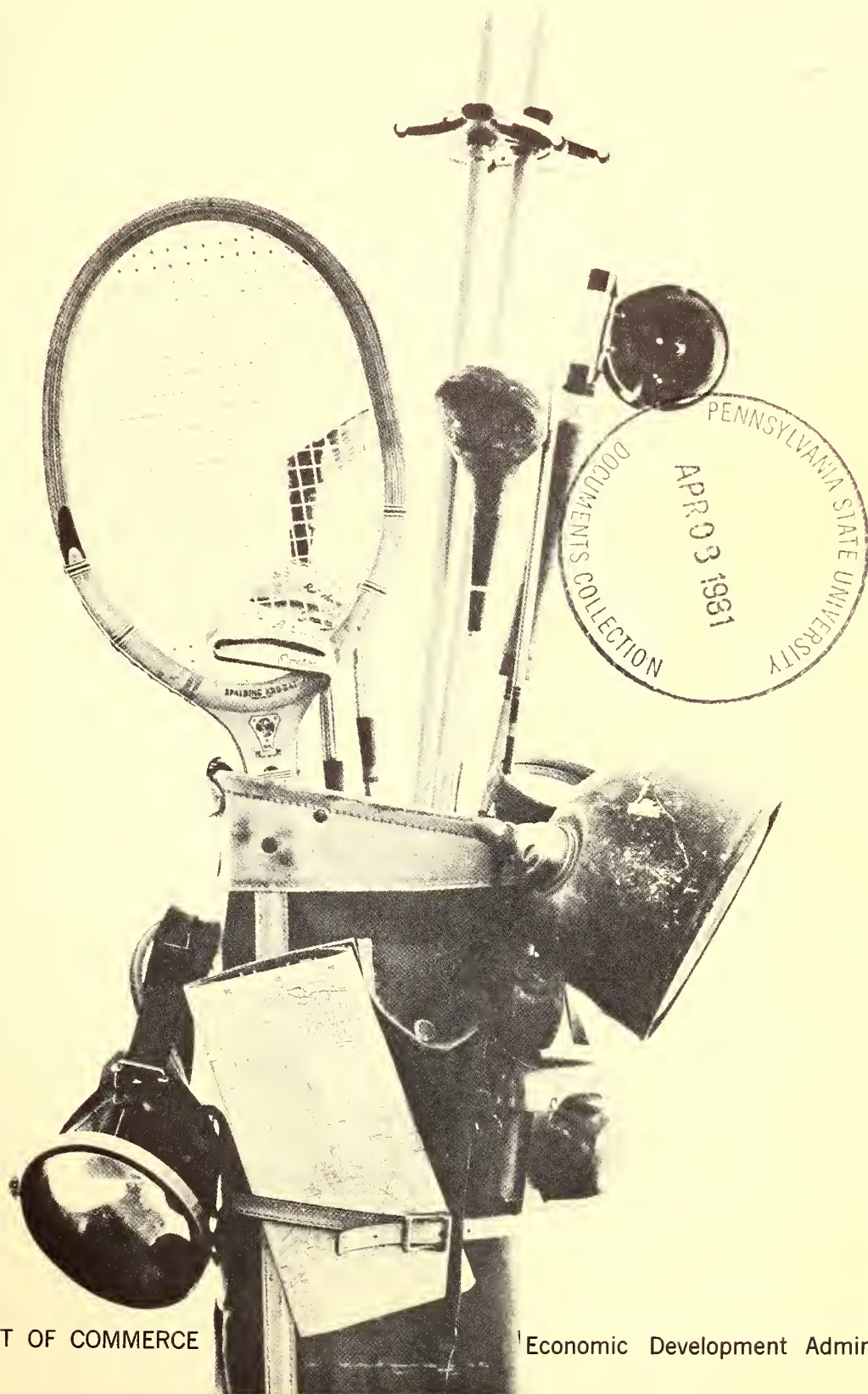



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TOURISM AND RECREATION



U.S. DEPARTMENT OF COMMERCE

Economic Development Administration



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TOURISM AND RECREATION
A State-of-the-Art Study

prepared for

The Office of Regional Development Planning

by

Arthur D. Little, Inc.

This study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the Contractor and do not necessarily reflect the views of the Economic Development Administration.

U.S. DEPARTMENT OF COMMERCE
Alexander B. Trowbridge, Secretary
Ross D. Davis, Assistant Secretary
for Economic Development

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FOREWORD

In America today, the trend toward ever greater participation in outdoor recreation and in travel between the 50 States is unmistakable. The demand for more and better travel and recreational facilities places an added responsibility on regional planners, who must determine future leisure-time needs and decide how best to provide for them.

This study, "Tourism and Recreation," surveys much of the research already done in the field of domestic travel and outdoor recreation in this country. It assembles a broad data base to aid in planning and promoting a wide variety of outdoor recreation and travel activities, and in measuring their impact on the regional economy.



Ross D. Davis
Assistant Secretary of Commerce
for Economic Development

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TABLE OF CONTENTS

PART I

<u>Chapter</u>	<u>Page</u>
<u>Scope, Purpose, and Limitations of this Study</u>	1
1. <u>Who is a Tourist and Who is a Recreationer</u> -- Some Definitions of a Tourist -- The Definitional Problem -- The "Promotable Tourist" -- The Tourist and the Traveler -- The Recreationer -- Measures of Recreationer Participation in a Given Activity.	2
2. <u>Indirect Methods of Measuring Tourist Spending</u> -- Statement of the Problem -- National Totals for Tourist Expenditures -- Methods of Estimating Tourist Spending.	15
3. <u>Direct Methods of Measuring Tourist Spending</u> -- Direct Observation at the Retail Store -- The John Rathmell Study of Alexandria Bay -- The Vermont Statewide Survey of 1960-1961 -- Direct Interviewing of the Tourist.	35
4. <u>The Economic Impact of Tourism and Recreation on a Regional or Local Economy</u> -- Introduction -- Effect on Employment -- Effect on Income -- Return on Investment -- Additional Problems Associated with Development of Tourism and Recreational Industries -- Conclusions.	45
5. <u>Factors Affecting the Growth of Tourism and the Demand for Recreational Facilities</u> -- <u>Methods of Projecting this Growth</u> -- Introduction -- Factors Affecting Demand -- Methods of Projecting Demand for Recreation/Tourism Facilities -- Evaluating the Usefulness of Various Methods of Projection.	60
6. <u>Methods of Promoting and Advertising a Tourist/Recreation Region</u> -- Introduction -- Mobility of the Tourist and the Need for Regional Promotion -- Methods of Promotion -- Methods of Promoting the "Captive" Tourist -- Methods of Testing the Effects of Advertising and Promotion -- Promotion of Tourism and Recreation in Florida -- Information on Promotional and Advertising Budgets.	78

<u>Chapter</u>	<u>Page</u>
7. <u>Multiple Use of Public and Private Lands</u> -- Multiple Use - A Definition -- The Role of Recreation/Tourism in Multiple Use Areas -- Some Problems of Multiple Use -- Multiple Use Criteria -- The Need to Relate Multiple Use Planning to Regional Planning -- Some Examples of Multiple Use.	96
8. <u>Benefit-Cost Analysis as Applied to Tourism and Recreation</u> -- Introduction -- Benefit-Cost Analysis -- Measuring Direct Project Benefits and Costs -- Government Fiscal Adjustments -- Incorporating Indirect Effects into the Calculus.	103
<u>Hypothetical Benefit-Cost Analysis of an Imaginary Recreation/Tourism Project</u> -- Introduction -- The Example.	114
9. <u>Approaches to Feasibility Studies</u>	125
10. <u>Seasonal Homes</u> -- Introduction -- The Importance of Seasonal Homes in a Local Economy -- The Use of Second Homes Around the Year -- Who are the Seasonal Home Owners? -- Conclusions and Recommendations.	129
11. <u>Children's Summer Camps</u> -- Introduction -- The Growth of Summer Camping -- Characteristics of Summer Camps in Wisconsin and Maine -- The Economic Significance of Summer Camps.	140
12. <u>Boating in the United States</u> -- Introduction -- The Scale of Boating as a Recreational Activity in 1965 -- Who are the Boat Owners? -- Factors Affecting Participation in Boating -- Regulatory Problems of Boating -- A Useful Source on Boating.	145
13. <u>Skiing in the United States</u> -- Introduction -- The National Ski Census - 1962 -- Skiing in the Northeast of the U.S.A. -- The Growth of Skiing -- The Growth in Ski Facilities -- Ski Areas as a Business Opportunity -- Why are Many Ski Areas Financially Marginal? -- Weekend and Weekday Skiing, Capacity Versus Usage -- Expenditures made by Skiers -- Sources on Other Aspects of Skiing.	154

Part I - (Continued)

<u>Chapter</u>	<u>Page</u>
14. <u>Hunting in the United States</u> -- Introduction -- Problems of Hunting Land Availability -- Outline Survey of the Factors Influencing Game Supply -- The Value of Hunting in Cost-Benefit Analysis -- The Economic Significance of Hunting in Wisconsin -- Factors Affecting Participation in Hunting -- An Important Statistical Source on Hunting.	169
15. <u>Sport Fishing in the United States</u> -- Introduction -- Problems of Supply of Fish and Fresh Water -- The Development of Strip Pits for Fishing in Kansas-- The Value of Fishing for Cost-Benefit Analysis-- Factors Affecting Participation in Fishing -- An Important Statistical Source on Fishing.	182
17. <u>Data Sources for Tourism and Recreation</u>	194
18. <u>Bibliographical Sources on Tourism and Recreation</u> -- The Work of the Outdoor Recreation Resources Review Commission -- The Crampon Bibliography -- Important Regional Bibliographies -- Bibliographies of Specialized Recreational Activities.	196

PART II 200

BOOK REPORTS ON MATERIAL USED IN PART I

Section

1. <u>Definitions, Measurement and Economic Impact</u>	205
2. <u>Factors Affecting Growth; Demand Prediction</u>	231
3. <u>Promotion and Advertising</u>	241
4. <u>Multiple Use</u>	251
5. <u>Cost-Benefit Analysis</u>	257
6. <u>Feasibility Studies</u>	269
7. <u>Specific Types of Outdoor Recreation</u>	277
8. <u>Data Sources and General Information</u>	293

SCOPE, PURPOSE, AND LIMITATIONS OF THIS STUDY

The newly-formed Office of Regional Economic Development (ORED) commissioned Arthur D. Little, Inc. to make a "state-of-the-art" study of recreation and tourism research as one of a series of parallel surveys. These are intended as handbooks for the technical staffs of its Regional Economic Development Commissions. Since the Commissions will be primarily concerned with planning and economic development, this study was designed and written with a deliberate bias towards those aspects of recreation/tourism. By the same token this report is limited to domestic tourism and outdoor recreation. It does not pretend to survey the entire field of recreation/tourism.

Arthur D. Little, Inc.'s terms of reference on this contract were to minimize our original research and to base the study largely on what was already available in published form. The study period was a little over four months. Consequently, where an area of the published materials on recreation/tourism was reviewed and most existing methodologies were found to be defective, it was beyond our charge to develop alternative approaches. Since the report was written primarily for the technician, an understanding of basic statistical techniques and economic theory by the reader was assumed. Commonly-used technical terms are therefore not explained.

The scope of this study was nationwide. However, certain public agencies which have worked in recreation/tourism either declined to release material or chose not to reply to our letters. Consequently, some geographical imbalance in the material used was unavoidable.

While considerable effort has been devoted to checking on the public availability, prices and location of the studies reviewed in this report, Arthur D. Little, Inc., cannot accept responsibility for inadvertent mis-statements on these particulars. A general policy of not reviewing reports which were confidential or otherwise difficult to obtain has been followed.

CHAPTER 1

WHO IS A TOURIST AND WHO IS A RECREATIONER?

A. SOME DEFINITIONS OF "A TOURIST"

During this study, many definitions of "a tourist" were encountered. A representative sampling would include the following:

1. The Florida Definition

"A tourist is defined as 'an out-of-state resident who stays at least one night in the state for reasons other than necessary layover for transportation connections or for strictly business transactions.' Visitors on one-day shopping trips, those only in transit to points outside the United States, and those visiting Florida for business reasons are not classified as tourists nor are out-of-state military personnel stationed in Florida or out-of-state students." (1)

2. The Alaska Definition

"A tourist is a nonresident traveling to Alaska for pleasure or culture and for no other purpose. He is a leisure traveler. To him, travel is not work, but pleasure." (2)

The report from which this definition was taken further attempts an interesting sub-classification of tourists into "visitors" and "vacationers." These were defined as follows: "The visitor came to see an Alaskan," (i.e., the visitor was visiting friends or relatives). "We were astounded, and few would claim to have foreseen how important he was to the (tourist) industry." (3). In contrast "The vacationer came to see Alaska. What prompted the trip is not known, for the study of vacationer motivation is complex. Most of our vacationers had been quietly assimilating impressions and information about Alaska for a number of years, and we cannot say what triggered them to come" (4).

3. The Nevada Definition

An out-of-state visitor is defined as those "Residents of states other than Nevada who visit the state or stop somewhere in the state while en route through and without regard for trip purpose. Commonly referred to as a tourist." (5).

4. The New Hampshire Definition

In a definition which was intended to serve as a working basis for a study of New Hampshire's vacation business, it was stated that:

A tourist or pleasure traveler is defined to be anyone who has traveled away from home for pleasure purposes. Expenditures for recreational and leisure activities that are not connected with pleasure traveling or vacationing are excluded. Spending for sports, movies, reading, television, and occasional dining out are thus excluded. It must be admitted that tourists and especially seasonal residents spend money on these items. The reason for excluding such expenditures is that the bulk of them are made by persons who are not engaged in vacationing or pleasure traveling. Also excluded are expenditures made in New Hampshire by residents of border states unless made in the course of a vacation or pleasure trip. (6).

5. The Vermont Definition

In a similar attempt to define the industry rather than the nature of its participants, a recent study made in Vermont stated: "The tourist and recreation industry. . . includes,

1. Business activity generated by out-of-state travelers and seasonal residents visiting Vermont regardless of length of stay, for vacation and recreation purposes, including other seasonal reasons in which an element of recreation is involved, but excluding visits for business purposes unless the primary reason Vermont was chosen for the visit was its recreational attraction, as is frequently the case with business conventions or conferences.

2. Business activity generated by Vermont residents on vacation or recreational outings within the state away from the immediate locality of their residence, primarily vacationers at their summer and hunting camps, their visits to tourist attractions and their patronage of ski facilities in winter.
3. Business activity generated by Canadians shopping in Vermont, offset by any unfavorable balance revealed between Vermonters shopping in neighboring states and its neighbors shopping here.

The third category might not strictly be interpreted as part of tourist and recreation business but was included because of the difficulty in distinguishing between Canadian visitors on vacation and those (visiting) solely for shopping purposes. In fact, the timing of Canadian shopping visits indicates the trips also include recreational activities." (7)

B. THE DEFINITIONAL PROBLEM

This sample of definitions should indicate many of the problems involved. The most obvious is a very common tendency to regard the out-of-state visitor as being synonymous with the tourist. The Nevada Out-of-State Visitor Survey is an example of this in practice. To do so is to grossly inflate the magnitude of tourism. The out-of-state businessman making a sales call is not a tourist in any sense of the word. Nor is the out-of-state resident attending a wedding or funeral, or attending a local college.

We know from the Passenger Transportation Survey that in the fourth quarter of 1963, some 20% of all trips made in the U.S.A. were for business purposes, while a further 17% were made on personal or family affairs. An additional 47% of all trips made in the U.S.A. were for visits to friends and relatives. (8) We would hypothesize that a proportion of these three categories of trips were made out-of-state. We would further suggest that a large proportion of these out-of-state trips did not have tourism as their prime motive.

The Alaska definitions are especially interesting since they attempt to segregate those out-of-state tourists who came to visit permanent residents of Alaska, and those tourists who came to see the State. We would question whether such a neat division is meaningful, since we believe that there are many vacationers whose choice of vacation place is determined by a combination of three factors:

1. Presence of relatives or friends whom the vacationer wishes to visit;
2. Presence of relatives or friends with whom the vacationer can stay at little or no cost;
3. Presence of an attractive and interesting area near to the home of the relatives or friends, which tips the balance in favor of visiting that particular group of friends and relatives rather than another, equally desirable group. Consequently, the fundamental trip purpose would be to see both the State and the relatives.

As the Alaska report suggests, there is no real knowledge of vacationer motivation, consequently, the points made in the previous paragraph must remain a matter of speculation until much more research is done in depth. We encountered a number of studies in which the respondent was asked: "Why did you visit this state?" but believe that the answers received often fail to show basic motivation. Some examples of this type of survey are the Kansas Tourist Study (1952) (9), the Survey of Out-of-State Motorists to Connecticut (1956) (10), The Georgia Travel Story (1964) (11), and the Florida Tourist Study (1965) (12).

While each of these studies is excellent in its own right, they contain sections in which the respondent was presented with a list of reasons for visiting that state and asked either to rank them in importance, or to select the single most important factor. The Connecticut study, for example, asked the respondent to pick out the "single factor (which) influenced you most in deciding to vacation in Connecticut" from the following:

1. Scenery
2. Vacation accommodations and services
3. Reasonable rates at lodging or camping sites
4. Quiet, comfort and rest
5. Activities, bathing, fishing, etc.
6. Historic places, museums, battlefields
7. Climate and summer weather
8. Family influences - home of relatives, etc.
9. Suitable and convenient location for family vacation
10. Quaintness, simplicity and colonial atmosphere of small villages, etc.
11. Other reasons

An adequate response to the above list may often be impossible since the tourist might find two or more factors were equally important in motivating him to take his trip. Furthermore, the car driver who has been asked to halt his journey for an interview, as was the case in the Kansas, Connecticut, and Georgia studies, is probably not in the right frame of mind to give much thought to answering this question.

This is especially likely since this type of question is both qualitative and complex, as opposed to the other questions asked which were quantitative, requiring simple, factual responses. A more detailed discussion of these problems is to be found in Russell L. Ackoff's Design of Social Research, (Chicago University Press, 1953, pp. 324-328), or Ackoff's Scientific Method: Optimizing Applied Research Decisions, (Wiley and Sons, 1962, pp. 210-214).

However, we believe that motivation, or trip-purpose, is the most important single element in defining "a tourist." The nature of the definition used should, in our opinion, be primarily determined by the purpose of the definition -- the use to which it will be put. The Vermont definition has particular merit since it centers around the presence of an element of recreation in a trip or visit. This seems to have significant operational advantages.

The Florida definition, although based on a similar concept to the Vermont definition, fails to make it explicit. This could lead to practical problems, since in order to make the definition workable for field purposes, it is necessary to establish a long list of exclusions. The Florida definition takes pains to exclude business visits, visits for shopping purposes, visits for military reasons, visits for educational purposes, and in-transit visits -- a list which is still far from complete. In contrast, the Vermont definition operates by inclusion rather than by exclusion, and is simpler to use.

However, it must be pointed out that the Florida definition is used in the enumeration of the characteristics and expenditures of close to half a million tourists each year and consequently is well proven in practice. Nevertheless, one could question whether the collection and analysis of data on tourists visiting Florida might not be quicker or cheaper if an inclusive, rather than exclusive, working definition were used.

The New Hampshire definition appears to be almost identical to that used in Vermont. The difference between a trip which contains "an element of recreation" and one which is made "for pleasure purposes" is one of degree. However, it is a very important difference. "For pleasure purposes" is a much tighter definition, and consequently excludes many trips in which recreational opportunities may have played an important motivational role.

The New Hampshire definition would, for instance, exclude the trip of a businessman attending a convention which has been located in a rural area because of its recreational facilities. It would probably exclude a visit to friends or relatives which was motivated by a desire to combine that visit with recreational activities. We believe that the understatement of the magnitude of tourism through excluding such trips is more serious than the overstatement caused by including trips in which recreational activities played only a minor motivational role.

In this respect, we believe that the Vermont definition's inclusion of business activity generated by conventions and conferences held in Vermont, primarily because of its recreational attraction, and "business activity generated by Vermont residents on vacation or recreational outings", is legitimate. We believe that the inclusion of business activities generated by Vermonters themselves is especially important.

Later in this report it will be shown that many outdoor sports, such as hunting and camping, enjoy substantial participation from residents of the state in which they occur. Participation in these sports undoubtedly has an income-redistributing effect and generates revenues for businesses located in the areas where they occur. Consequently, they are of importance in any economic or planning analysis.

Now it could be argued that participation in such sports as hunting and camping falls under "outdoor recreation" rather than "tourism". However, we believe that this distinction frequently cannot be made with validity since the tourist is often also an outdoor recreationer, hence our use of the terms "recreation/tourist facilities" and "recreation/tourist industry." Therefore, we believe that the Florida, Alaska and Nevada definitions are unnecessarily limiting in restricting the application of the term "tourist" to out-of-state people.

It is readily admitted that the entire issue of whom to include as "a tourist" is very nebulous. We have found no study which compares the effect of using various definitions of "a tourist" or "the tourist and recreation industry" on the outcome of the study, other than the Measurement of Tourism in Massachusetts.⁽¹³⁾ In this report a tourist was defined "as a person, not on business, who stays away from home overnight."⁽¹⁴⁾ Using this definition, the Massachusetts study estimated that the revenue derived by this state from "tourist expenditures" was \$932.4 million in 1963. ⁽¹⁵⁾ It then estimated the revenue derived by the state from "conventionally defined tourists" (tourists staying in commercial lodgings and "other pleasure" travelers) as being \$451.3 million in 1963. ⁽¹⁶⁾ Further research along these lines would make the selection of a working definition for a particular study much easier.

C. THE "PROMOTABLE TOURIST"

A universal definition, valid for all types of tourist study, is neither necessary nor desirable. Rather the definition adopted should be tailored to the purpose of the study in question. Many tourist studies, for example, are directed towards measuring recreationer/tourist expenditures in a given state. The motive behind these studies is to determine the size of the budget which will be given to that state's advertising and promotion agency. For this type of study one is interested in measuring the expenditures of the "promotable tourist."

In other words, those tourists who can be induced to come to the state, or those tourists who have come to the state and can be induced to stay longer than originally intended, through promotion and advertising.

The "promotable tourist" may include several classes of persons whose basic trip purpose is neither outdoor recreation nor tourism. Examples are people visiting friends, parents visiting children attending out-of-state universities, and persons on business visits to recreational or tourist areas.

In each case this person may be induced to add tourism or outdoor recreation to his trip, as a secondary purpose. He is, therefore, worth counting, always provided that some adjustment is made to reflect the true proportion of that person's expenditures which were due to touristic or recreational activities. This is not an easy thing to do, as the 1962 New Hampshire report (17) and the 1963 Vermont report (18) show so eloquently. Further research and practical experience are necessary to develop effective methods of achieving this separation of expenditures.

D. THE TOURIST AND THE TRAVELER

Another common area of confusion is the distinction between the traveler and the tourist. As the 1962 New Hampshire report states that "Although a tourist is a traveler, not all travelers are tourists." (19) The long-distance commuter and the shopper making a lengthy journey to shop are travelers, but not tourists.

The 1963 Nevada Out-of-State Visitor Survey, for example, included California residents who commute to work in Nevada and who make casual trips to shop in retail stores in Nevada, or to visit professional offices in the Lake Tahoe area. This otherwise excellent report is thus a visitor study rather than a tourist study. There can be no objection to this, were it not for the fact that an attempt has been made to get too much mileage from one study, which talks of Nevada's "tourist industry" when it is really referring to income derived from out-of-state visitors.

A complication often arises with regard to people traveling to and from a seasonal home. Although they are generally regarded as travelers, they are often omitted from tourist studies. Since the "element of recreation" plays a very large motivational role in their trips and the location of their seasonal homes, they should be included in any recreationer/tourist study.

E. THE RECREATIONER

There are two main classes of recreation -- indoor and outdoor. Indoor recreation involves such activities as visits to movies, watching television, reading books or magazines, and participation in squash or basketball. Outdoor recreation involves participation in organized sports such as baseball and football, and more casual activities such as hunting, fishing, camping, hiking, and climbing.

Some types of outdoor recreation are primarily associated with urban areas. Baseball is an example. Other types of outdoor recreation are predominantly found in rural areas. Camping and canoeing are instances of this. Because of the purpose of the Office of Regional Economic Development, this report will be concerned only with outdoor recreation, and then only with those forms of outdoor recreation which occur in rural areas.

A report made on the Tennessee State Park System in 1963 contains this discussion of the term recreation -- "Recreation is conceived of in the generic sense of the word, the "re-making" or "re-creating" of an individual through the use of leisure time in such a fashion as to restore or rebuild what has been depleted or exhausted in his makeup and to add to his knowledge and abilities with the purpose of a fuller, more satisfying life. Mere diversion does not measure up to recreation in this sense." (20)

Several important points emerge from this definition. The first is that recreation involves an individual in the active use of his leisure. The second is that recreation frequently involves adding to one's stock of knowledge, experience and abilities.

Thus, a fisherman must not only make active use of his leisure in going to places where fish are likely to be found and undergoing physical exertion in an attempt to catch the fish, but must also have a certain knowledge of the behavior of fish and of conditions likely to engender good fishing. Similarly, skiing involves substantial physical exertion which must be combined with entirely new abilities such as performing parallel turns, making stops at high speed, and riding T-bar lifts. In addition, it involves the acquisition of new knowledge concerning snow conditions, waxing methods, etc. In a broad sense, the same conditions would apply to a visit to Disneyland or Coney Island, although the degree to which knowledge and abilities were added to the recreationer's existing stock would be less than if he were fishing or skiing.

A major objection can be made to the concept of recreation developed above. This is the finding of ORRRC Study Report 19, the National Recreation Survey, that "driving or riding in the automobile for pleasure is the outdoor activity we do most," (21) while "walking for pleasure is second only to driving for pleasure in annual rate

of participation." (22) The authors of the National Recreation Survey avoid the obvious conceptual problems involved here by dividing outdoor recreation into five classes. These were:

1. Physically active recreation of youth;
2. Winter sports;
3. Water sports;
4. Backwoods recreation (camping, hiking, mountain climbing and hunting); and
5. Passive outdoor pursuits (23)

Clearly these could be aggregated into two overall categories -- active outdoor recreation and passive outdoor pursuits. Indeed, both walking for pleasure and driving for pleasure were included by the ORRRC in the category of passive outdoor pursuits. Consequently, we would answer the possible objection to our conceptualization of outdoor recreation by stating that it confines itself to active forms only -- a conceptual constraint which is valid for the purposes of this study.

It is important to realize that one cannot provide "outdoor recreation," a point which has been well made by Hugh A. Johnson in several of his publications. As Mr. Johnson has written, "It is possible to provide opportunities for, or resources and facilities for, but it is next to impossible to provide outdoor recreation as such, all neatly packaged and predigested." (24)

How then does the recreationer differ from the tourist? The principal difference seems to lie in the degree of activity, of actual physical exertion involved. Both the tourist and the recreationer add to their stock of knowledge and experience as a result of their activities. The recreationer, however, frequently needs to acquire new skills, or new abilities, in order to engage in a particular form of recreation. This is thus the second point on which the two differ. Tourism consists primarily of travel for pleasure purposes, it does not normally involve a large measure of physical exertion, nor does it involve the acquisition of new skills.

It is clearly possible to be both a recreationer and a tourist. Indeed, Chapter 4 of ORRRC Study Report 20, Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults, is devoted entirely to participation in outdoor recreation while on vacation and weekend trips. The person who is traveling from place to place for pleasure, who stays at campgrounds and engages in such activities as water skiing, boating and fishing, is both a tourist and a recreationer.

Little is to be gained, for most types of study, in attempting to separate a person's touristic activities from his recreational activities. However, for planning purposes, it may be very important to do so.

Tourism, on the whole, does not require special facilities. The few exceptions to this rule are generally provided for by private enterprise through the market mechanism -- hotels, motels, restaurants and gas stations for example. Furthermore, many "tourist attractions" are already in existence and so do not have to be provided -- examples are historic battlegrounds, scenic overlooks, waterfalls and historic homes.

In contrast, outdoor recreation requires many special facilities. Boat-launching ramps, campgrounds, ski areas, hunting preserves, picnic tables and marked bathing beaches are but a few examples. Many of these facilities will have to be provided by public agencies, since they are often not profit-making. Consequently, it is useful to have some quantitative measure of recreationer participation in, or demand for, a given type of activity.

F. MEASURES OF RECREATIONER PARTICIPATION IN A GIVEN ACTIVITY

Outdoor Recreation Resources Review Commission Study Report 19, entitled National Recreation Survey, established a most useful unit measure of the demand for or participation in a given form of outdoor recreation. The basic unit used was the occasion. Three types of occasion were distinguished -- outings, trips, and vacations.

The outing was defined as "outdoor recreation occasions on which persons were away from home for the major part of the day -- 8 hours on average with little variation -- but not overnight." (25) The trip was defined as an outdoor recreation occasion on which "persons are away from home at least overnight," (26) while the vacation was defined as an outdoor recreation occasion lasting four or more days. Since the nature of the outdoor recreational activity participated in, distance traveled and expenditure involved, are directly related to the length of the occasion, the above classification system is both valid and useful.

The above measures are especially useful for planning purposes since they enable current and past usage of a given facility to be converted into a single unitary measure -- the occasion day. This is very similar to the "visitor day" and the "camper day" which have long been used to measure attendance and usage levels at state and national parks. The occasion day, or person occasion day as it is sometimes expressed, is meant to describe one person spending several hours participating in one or more outdoor recreational activities. An interesting and successful use of the occasion day concept in a feasibility study is to be found in Recreation Potential of Sam Rayburn Reservoir. (27)

CHAPTER I - REFERENCES

1. Florida Development Commission Staff, 1965 Tourist Study, Tallahassee, Florida, 1966, p. 2. (The 1964 Tourist Study, which is very similar, is reviewed in Part II, Section 1, of this report.)
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CHAPTER 2

INDIRECT METHODS OF MEASURING TOURIST SPENDING

A. STATEMENT OF THE PROBLEM

"There is anything but common agreement among scientists and philosophers of science as to just what measurement is and how it should be performed," Russell Ackoff has written, "Measurement, perhaps more than any other research activity, has been the principal stimulus of progress in both pure and applied science," (1) In the measurement of tourist spending and its impact on the economy of a state or region, these observations are particularly true. This remains one of the most nebulous and least scientific areas in tourism and recreational research. The methods in use today represent a large measure of guesswork. They are frequently stimulated by the desire of a state tourist development agency to maximize its own budget by presenting as large a figure for tourist expenditures as possible to the state legislature.

There are four major reasons why the measurement of tourist spending is in such a primitive condition.

1. There is a lack of general agreement on who is a tourist. A multiplicity of definitions exist. Obviously, as long as no rigorous and standard definition exists, there will be little hope of comparing one state's data with another.
2. There is a lack of agreement as to whether the spending of the tourist alone should be measured, or whether the spending of both the tourist and the traveler should be measured. It has been argued by some that inclusion of the traveler, for instance an out-of-state businessman, artificially inflates the monetary importance of tourism in a state's economy. (2) It is important to maintain a tight division between travel and tourism.
3. It is difficult to use those few data which are published by the Federal Government to measure tourist spending. The U.S. Department of Commerce, for example, publishes estimates of personal expenditures on a variety of goods and services. One

category used is recreation. However, this category includes such things as toys, sporting goods, expenditures on radio and television, admission to amusements and reading matter. A similar problem arises through the Commerce classification of expenditures on hotel and motel accommodations under housing. This important item in most tourist budgets is therefore lost to the researcher. Sums spent on eating and drinking are included in the food and tobacco category, while money spent on transportation for pleasure purposes is grouped into the general category of money spent on transportation for all purposes. (3)

4. There is an absence of any reliable national total which could be used as a control against which to measure state totals. This problem is especially important.

B. NATIONAL TOTALS FOR TOURIST EXPENDITURES

The National Association of Travel Agents (NATO) estimated national domestic tourist expenditures in 1958 as being \$19.1 billion. (4) This estimate was arrived at primarily through piecing together information received from the various state travel or promotional agencies, and modifying some of them "to comply with regional trends." (5)

In sharp contrast to the NATO estimates, Fortune Magazine made an independent study which produced an estimate of \$10.6 billion as the amount spent nationally by Americans on domestic vacations and pleasure travel in 1958. (6) This estimate was based on the Curtis Publishing Company's surveys and annual data published by the Department of Commerce on spending in hotels and motels, intercity travel, gasoline, etc. A breakdown of this estimate can be found in the review of the Fortune article, in Part 11 of this report.

The American Automobile Association's Profile of the American Tourist for 1962 stated that "the national travel budget amounts to over \$20 billion annually." (7) This figure was documented only by a state-by-state list of visitor expenditure estimates which seem to have been collected from the various state travel and promotional agencies and then summed.

A report entitled The Vacation Travel Business in New Hampshire made an interesting check on the relationship between national totals and those derived in state tourist studies for tourist expenditures in lodging places. (8) Using the assumption that 21% of total tourist expenditures in most states are for lodging places, the report compared a number of states estimates with the reported receipts of all lodging

places in that state, as reported in the Census of Business. It will be shown later in this chapter that the 21% figure is generally accurate.

This check showed that Kentucky's estimate for 1958 was 279% over the 21% of the Census of Business receipts figure; while Mississippi's estimate was 295% over and New Jersey 331% over. Clearly, exaggeration of the value of tourist expenditures is commonplace with current methods of estimation.

C. METHODS OF ESTIMATING TOURIST SPENDING

1. Using the Census of Business

There are several examples of states which have made estimates of tourist spending by use of the data published in the 1958 Census of Business, chiefly those data in the subcategories "Retail Trade" and "Selected Services." The recent publication of the 1963 Census of Business and the fact that the Census is now conducted every five years, make it an important source for work on tourist expenditures.

The description of this method given below is based on a 1962 New Hampshire tourist study in which it was used. (9) An initial assumption was made in this study that about 80% of the total expenditures made by tourists were received by businesses in the following six Census categories: Commercial Lodging Establishments; Eating and Drinking Places; Gasoline Service Stations; Amusements, except Motion Pictures; Auto Repair Services and Garages; and Tire, Battery and Accessory Stores. We will now examine expenditures in these categories.

Some sixteen independent sources (10) have arrived at roughly the same estimate of the percentage of tourist spending that goes for lodging. The average of these sixteen sources is 22.4%; while the median is 21.5%. These figures are particularly significant since the same sixteen sources agree on very little else. Definitions of the term "tourist" used in these studies vary from report to report, which suggests either that the clustering around the 22.4% figure is somewhat coincidental or that the analysis of tourist spending on accommodations is insensitive to the working definition used.

If the 22.4% figure is accepted, this leaves about 58% of all tourist spending to be accounted for by the five Census categories other than Commercial Lodging Establishments, primarily: Eating and Drinking Places, Gasoline Service Stations, and Amusements other than Motion Pictures. Based on an examination of more than twenty studies of tourist expenditures, we believe that this distribution is reasonable.

However, while the above distribution of expenditures is basically sound for such well-developed tourist areas as New England or the American Southwest, there will be substantial deviations from these norms in relatively undeveloped areas such as Alaska. Traveler Pro-

files, a report on summer travel to Alaska during 1963 and 1964, showed that 15.6% of the vacationer's dollar in Alaska was spent on lodging, 18.7% on food and 47.3% on transportation. (11) Clearly, the large percentage devoted to travel is valid, due to the sheer distance of Alaska from the continental U. S. A. Likewise, the relatively small percentage devoted to lodging can be explained by the large number of vacationers who bring camping gear or a trailer.

We doubt if the Census of Business categories "Auto Repair Services" and "Garages and Tire, Battery and Accessory Stores" are ever more than marginal recipients of the tourist's dollar. The 1962 New Hampshire study states that "out-of-state travelers might reasonably be expected to have their autos serviced for their trips. Hence, their expenditures for repairs and accessories might not be in proportion to the amount of traveling done." (12) A study made in Vermont in 1960-61, which measured actual expenditures in gasoline stations and garages, found that only 16% of their receipts were attributable to tourists. (13)

Using the six Census categories listed above, the New Hampshire report took the total receipts for each category and estimated what percentage of each category total was attributable to tourist spending. The categories and their respective percentages are listed in Table 2-1, and discussed in greater detail in the following pages.

TABLE 2-1

RECEIPTS ATTRIBUTABLE TO TOURIST SPENDING
AS USED IN THE NEW HAMPSHIRE REPORT*

<u>Establishment Class</u>	<u>% of Total Receipts in that Class Attributable to Tourists</u>
Seasonal Hotels	93%
Year-Round hotels	60
Motels, Tourist Courts	94
Trailer Parks	20
Sporting and Recreational Camps	100
Eating Places	35
Drinking Places	35
Gasoline Service Stations	25
Tire, Battery, Accessory Stores	25
Auto Repairs and Services	25
Amusements, Except Movies	35

Grand Total equals 80% of Receipts from Vacationers and Pleasure Travelers to which Receipts from Seasonal Homes and Rented Cottages must be added.

Source: Vacation Travel Business in New Hampshire -- A Survey and Analysis, Table 75, page 124.

*The category "liquor stores" has been deleted because New Hampshire's liquor laws and geographic position make this a special case.

a. Expenditures in Hotels and Motels

The 93% of receipts attributed to tourists in the "Seasonal Hotel" category, although high, is based on estimates made by operators of these hotels to state enumerators during a 1960 field survey. In a like manner, the 60% figure for year-round hotels and the 94% figure for motels and tourist courts are based on the 1960 field survey of all lodging establishments. The author of this chapter, who has experience of evaluating motel operations, believes that the small-scale motelier's estimates of the percentages of his room sales made to tourist and business travelers should be treated with caution. Nevertheless, the assumption that almost the entire receipts of transient accommodations, in a predominantly rural area such as New Hampshire, come from tourists, would seem to be reasonable.

Table 21 of the 1963 Census of Passenger Transportation shows that 35% of traveler nights in commercial lodgings are spent by business travelers. (14) This implies that 65% of all traveler nights were spent by non-business travelers. Not all of these would be tourists, since the non-business traveler includes people traveling on personal or family business (e.g., to attend a wedding or funeral, to visit an out-of-town college or school, or one-way trips involving change of residence), and visits to friends and relatives. However, many of these non-business travelers who were not strictly "tourists," such as those visiting children in college, behave very similarly to tourists in terms of their expenditure patterns. Consequently, it might in general be reasonable to attribute between 40 and 50% of receipts in year-round hotels and motels to tourist and quasi-tourist expenditures.

b. Expenditures in Trailer Parks

The 20% attributed to tourist expenditures in trailer parks is, in the words of the New Hampshire report, "a guess." We were unable to discover any report which would substantiate or disprove this estimate.

c. Expenditures in Sporting and Recreational Camps

The 100% attributed to sporting and recreational camps is obviously accurate. Chapter 11 of this report discusses some of the economic aspects of children's summer camps.

d. Expenditures in Eating and Drinking Places

The 35% attributed to eating and drinking places seems reasonable and is supported by a number of expenditure studies in other states which we examined.

e. Expenditures for Gasoline

The allocation of gasoline sales in New Hampshire was made by computing average sales per month for the first four months of

each year from 1955 to 1960. This average was then multiplied by twelve. The product was taken as representing the volume of sales which would have been made to New Hampshire residents for non-pleasure travel in a normal year. Actual consumption of gasoline was found to be substantially above this figure. This excess was attributed to pleasure travel by New Hampshire residents and visitors to the state. This excess was found to average slightly under 20% of actual total sales for each year from 1955 through 1960. ⁽¹⁵⁾ The figure actually used was 25%, a correction which was made to counter the bias created by skiers' purchases of gasoline during the winter months.

f. Expenditures for Tire, Battery and Accessory Stores and for Auto Repairs and Services

We believe that the 25% figure used for these two categories is probably too high. A study based on the actual sales of 391 gas stations and garages in Vermont between October 1960 and September, 1961 indicated that only 16.4% of the total sales were due to vacationers. ⁽¹⁶⁾

g. Expenditures for Amusements Other than Movies

The figure of 35% shown in Table 2-1 was based purely on judgment and is thus of little general value, especially since this category is complicated in New Hampshire by the substantial receipts from horse racing. A useful discussion of the use of this particular category of the Census of Business is given in a report published in 1963 by the Vermont Development Department. ⁽¹⁷⁾

The problem of extracting an estimate of receipts due to tourist spending from the Census of Business is largely one of classification. Most of the Standard Industrial Classification (S.I.C.) code groups are for types of amusement and recreation which are not truly a part of tourism. For example, S.I.C. code group 793 is "Bowling, Billiards and Pool;" while S.I.C. code group 794 is "Baseball, Football Clubs and Promoters."

The bulk of tourist expenditures are embodied in S.I.C. code group 7943 - 6: "Other Commercial Recreation" and S.I.C. code group "7949 Part" which is "Other Commercial Amusements." Difficulties arise in their use since these subgroups include receipts from facilities used almost entirely by local residents, such as "Swimming Pools" and other facilities used by both locals and people on vacation, such as "Amusement Parks."

An additional complication arises due to the existence of two residual categories, both extremely nebulous. These are the "Other Commercial Recreation not Elsewhere Classified" and "Other Commercial Amusements not Elsewhere Classified." There is no indication of what is entered under these categories in the published volumes of the Census. This information can only be obtained by contacting the Chief of the Business Division of the Bureau of the Census.

The Vermont Development Department for example contacted the Bureau and discovered that the most important element in these unidentified "Other" categories for Vermont was the receipts from the commercially operated ski lifts. The authors commented "It appears that Vermont's ski business was partially recorded in these two "Other" categories and accounted for just under 70% of their receipts reported in 1958." (18)

This example indicates the care with which the "Other" categories must be treated, and the need to obtain a statement on the contents of these categories from the Bureau of the Census for any particular state under study.

In addition, the Vermont study uncovered a number of comparability problems as between the 1948, 1954 and 1958 Censuses of Business. In 1948, the Census included any selected service business with annual receipts of \$500 or more; while in the following two censuses this cut-off point was raised to \$1,000. However, this change has affected the comparability of the number of establishments rather than receipts and payroll data.

The authors comment "With each succeeding census, not only was the variety of amusement and recreation operations covered extended, but also more thorough coverage of establishments in previously canvassed classes achieved. The seasonal nature of many amusement and recreation business activities, such as bathing beaches and boat rentals, creates special difficulties in insuring that all are included in a census. The U. S. Bureau of the Census has taken special pains to improve its coverage of such business establishments." (19)

h. The Problem of Seasonal Homes and Rented Cottages

The Census of Business does not include receipts from seasonal homes and rented cottages. In many rural states the seasonal home "industry" accounts for a major segment of all receipts from recreation/tourism. This statement is supported by a study made in Wisconsin in 1959, entitled Private Cottages in Wisconsin (20) and by a similar study made in Vermont in 1960-61. (21) Both studies are discussed at length in Chapter 10 of this report. Due to the importance of receipts from seasonal homes, it is essential that some consideration be given to them in any attempt to measure tourist expenditures in areas which have significant numbers of these homes.

The 1962 New Hampshire study made a "transfer" of the Wisconsin findings to New Hampshire. This was done by adjusting the Wisconsin average expenditure per cottage to 1958 values by means of the consumer price index. The result was \$1,357 per cottage per annum. Fifteen percent was removed from this sum to give a rough estimate of that portion of the cottage owner's expenditures devoted to meals, amusements and transportation. This 15% figure was taken as having been included in other categories of expenditures. The adjusted figure of \$1,180 per cottage was then multiplied by the number of seasonal homes in New

Hampshire, a figure which was derived from the 1960 Census of Housing and town tax records. Seasonal dwellings, incidentally, are defined in the Census of Housing as "Units intended for occupancy during only a season of the year."

This method can be sharply criticized for its rules of thumb and transfer of Wisconsin data to New Hampshire where conditions may be quite different. Nevertheless, it provides a cheap method of making these estimates and has a large degree of validity. Improvements on this approach could obviously be achieved by conducting a local study of expenditures made by second home owners.

2. The Massachusetts Method - Using the Census of Business in Conjunction with the Census of Passenger Transportation

a. General Features of this Method

This method was devised by a private research group in a study made for the State of Massachusetts in 1965-66. (22) It has the advantage of substituting "hard" data for the rules of thumb and educated guesses sometimes used in the New Hampshire report. However, it has the disadvantage that many of these data are based on nationwide averages which may be totally unrepresentative for predominantly rural states.

The study defines a "tourist" as any person who spends at least one night away from home, excluding persons on business trips. This is a somewhat broad working definition, but one which fits in well with the system of data presentation adopted in the 1963 Census of Passenger Transportation (Volume P-4).

This Census was based on a probability sample of about 6,000 households. This sample was so designed as to be representative of the entire United States. This Census is also known as the Passenger Transportation Survey of National Travel (P.T.S. for short). It should be noted that special runs from the P.T.S. may be purchased for individual states or regions. These are available on punch cards and can be obtained from Walter F. Buhl, Assistant Chief of the Transportation Division, Bureau of the Census.

The P.T.S. data are reported in terms of traveler-nights. Each night a traveler remains away from home is one traveler night. Thus, a family of four, spending two nights away from home, would represent eight traveler nights. The P.T.S. reports traveler nights by these four types of trip purpose:

- (1) Business
- (2) Visits to friends and relatives
- (3) Other pleasure trips
- (4) Personal or family affairs

Therefore, one need only remove those traveler-nights spent for business purposes from the grand total to obtain the number of traveler-nights spent by tourists.

Of course, this assumes that the very broad definition of a "tourist" used in the Massachusetts report is accepted. This author believes that only traveler-nights spent for "visits to friends and relatives" and "other pleasure trips" should be counted. Even so, the total obtained will be high, since many visits to friends and relatives will be made by people who are neither vacationers nor tourists.

The P.T.S. also reports the distribution of traveler-nights by type of lodging, using these four categories:

- (1) Commercial lodgings
- (2) Friends' and relatives' homes.
- (3) Own cabin
- (4) Other

b. The Method Outlined (23)

(1) Estimating Total Commercial Lodging Place Receipts.

First, a figure for total receipts in commercial lodging places was taken from the 1963 Census of Business. This was \$127.1 million for the State of Massachusetts. Next, that portion of these receipts attributable to the business traveler was removed. To perform this operation the data listed in Table 21 of the P.T.S. were used. These data showed that 35% of all traveler-nights spent in commercial lodgings were spent by business travelers. Consequently, the \$127.1 million total was reduced by 35%. This produced a figure of \$82.6 million as the total commercial lodging place receipts from non-business (or "tourist") travelers.

The same operation could have been as readily performed using a more limited definition of a "tourist," since the method used is equally valid for a more conventionally accepted working definition.

(2) The Elimination of Non-Room Expenditures. The \$82.6 million figure was next adjusted to eliminate that portion of receipts which represented non-room expenditures. They include such things as food, drink, telephone and other services. For this operation a figure taken from Harris-Kerr-Forster's Trends in the Hotel-Motel Business for 1964 was used. This stated that non-room expenditures, such as those made on telephone service, food and beverages, averaged out nationally at 50% of total lodging place receipts, in large establishments.

To perform this operation the report again turned to the Census of Business. The Census showed that the receipts of large lodging places represented 70.4% of the total commercial lodging place receipts. Consequently, the non-room receipts of large lodging places

represented 35.2% of total commercial lodging receipts (i.e. half of 70.4%).

In order to derive total room receipts from non-business travelers, the Massachusetts report then subtracted the 35.2% figure from 100% to derive a factor of 64.8%. This 64.8% figure could then be applied to the \$82.6 million total of commercial lodging place receipts from non-business travelers to produce total room receipts. 64.8% of \$82.6 million is \$53.5 million, a figure which represents total room receipts for Massachusetts in 1963.

(3) Expanding Room Expenditures (Receipts) into Estimates of Total Expenditures by Tourists Staying in Commercial Lodging Places. It will be recalled that a strong case can be made for accepting some figure close to 22% as that proportion of all tourist expenditure which is spent on lodgings or rooms. The figure actually used earlier in this chapter was 22.4%. This may change over the years or may prove to be somewhat inaccurate. Nonetheless, it is the best presently available in the published literature on tourism. Consequently, we believe that the Massachusetts report was justified in considering the \$53.5 million in room receipts as 22.4% of all expenditures made by tourists who stayed in commercial lodging places. The \$53.5 million figure can thus be expanded to 100% simply by dividing by 0.224, which gives a quotient of \$240.0 million.

(4) Deriving Estimates of Total Expenditures by Tourists Not Staying in Commercial Lodging Places. The final step in the method used in the Massachusetts report is to derive estimates of expenditure for those "tourists" who do not stay in commercial lodgings. In order to do so, Table 21 of the Passenger Transportation Survey was first reworked to eliminate those persons traveling on "business" and "to attend school." The Massachusetts report used the reworked table to obtain the distribution of trip purpose for those "tourists" staying in commercial lodgings shown in Table 2-2.

TABLE 2-2

DISTRIBUTION OF PERSONS STAYING IN
COMMERCIAL LODGINGS BY TRIP PURPOSE

Visits to Friends and Relatives	14.1%
Other Pleasure Trips	70.3%
Personal or Family Affairs	15.6%
Total	100.0%

Source: National Passenger Transportation
Survey, 1963, (P-4), Table 21

This distribution was then applied to the total room receipts figure -- some \$53.5 million for Massachusetts in 1963. Applying the percentage distribution shown in Table 2-2 to this sum, the distribution of room receipts shown in Table 2-3 was obtained.

TABLE 2-3

TOTAL ROOM RECEIPTS IN MASSACHUSETTS IN 1963
BY TYPE OF TRAVELER

Visitors to Friends and Relatives	\$ 7.54 million	
Other Pleasure Travelers	37.61	"
Travelers on Personal or Family Affairs	8.35	"
Total	\$53.5	"

Source: Computations based on data in Table 2-2.

The results shown in Table 2-3 were then expanded to give expenditure figures for classes of tourist other than those who stayed in commercial lodging places. This was again done by using Table 21 of the Passenger Transportation Survey. This showed where the three groups of "tourists," used in Table 2-3 above, spent their traveler-nights. The results are presented in Table 2-4.

TABLE 2-4

PERCENT OF TRAVELER NIGHTS SPENT IN
COMMERCIAL LODGINGS BY TRIP-PURPOSE

Visits to Friends and Relatives	6%
Other Pleasure	40%
Personal or Family Affairs	18%

Source: National Passenger Transportation Survey, 1963 (P-4), Table 21

The information in Table 2-4 above, was then combined by the authors of the Massachusetts report with that in Table 2-3, above, to produce expenditure figures for those tourists not staying in commercial lodging places. This was done in the following manner: It was

known that visitors to friends and relatives paid \$7.54 million to commercial lodging places (Table 2-3) for only 6% of their total traveler nights (Table 2-4). Consequently, it follows that these visitors paid an "imputed room rent" for the other 94% of their nights' accommodation which was spent in the homes of friends, in their own cabins, and so forth. In a like manner those persons on visits to friends and relatives paid an "imputed room rent" for the 60% of their nights' accommodation spent in other than commercial lodging places. Similarly those people traveling on personal or family affairs paid an "imputed room rent" for the 82% of their accommodation overnights not spent in commercial lodgings.

The Massachusetts report calculated the imputed room rents by means of the following formula:

$$\text{Imputed Room Rent} = \frac{\text{Total Room Receipts by Type of Traveler "T"}}{\% \text{ of all Traveler "T's" nights spent in Commercial Lodgings}} \times \frac{\% \text{ of all Traveler "T's" Nights not spent in Commercial Lodgings}}{1}$$

The total imputed room rents by trip purpose are shown in Table 2-5, below.

TABLE 2-5

IMPUTED ROOM RENTS BY TRIP PURPOSE

Visits to Friends and Relatives = $(7.54 / .06 \times .94) = \118.2 million

Other Pleasure Trips = $(37.61 / .40 \times .60) = \56.4 million

Trips for Personal or Family Affairs = $(8.35 / .18 \times .82) = \38.0 million

Source: Calculations using the formula stated above and data from Tables 2-3 and 2-4.

It will be recalled that lodgings constituted about 22.4% of all tourist expenditures. In other words, lodging expenditure divided by 0.224 gave total tourist spending. Alternately, lodging expenditure can be multiplied by 4.48 -- the reciprocal of 0.224 -- to get total tourist spending.

The Massachusetts report assumed that the category of "other pleasure" travelers who do not stay in commercial lodgings have

basically the same cash expenditures in the everything-but-room category. This seems to be a reasonable assumption since the majority of the Census' "other pleasure" travelers are vacationers. However, since these "other pleasure" travelers do not pay for their night's accommodations, the imputed room rent was multiplied by a factor of 3.48 in order to get the total "actually" spent by these travelers. The 3.48 figure was derived by subtracting one from 4.48, the reciprocal of 0.224. The number one was subtracted because this represents one times the amount which would have been spent on lodgings had the "other pleasure" traveler stayed in a commercial lodging house. Thus the total expenditures by "other pleasure" travelers was estimated at 3.48 multiplied by \$56.4 million (a figure taken from Table 2-5), or some \$196.3 million.

Next, the Massachusetts report estimated the total expenditures of "visitors to friends and relatives" and persons traveling on "personal or family affairs." Since these categories of travelers will not spend as much on food, amusements, travel, and services as the typical tourist or vacationer, the report arbitrarily allocated only 85% of the non-lodging expenditures per traveler-night to those who did not stay in commercial lodgings.

Thus, instead of multiplying the \$118.2 and \$38.0 million figures contained in Table 2-5 by 3.48, they were multiplied by 85% of 3.48, or 2.96. The Massachusetts report's grand totals for "visitors to friends and relatives" and persons traveling on "personal or family affairs" were:

Visitors to Friends and Relatives	= 2.96 x 118.2 = \$349.9 million
Travelers on Personal or Family Affairs	= 2.96 x 38.0 = \$112.5 million
"Other Pleasure" Travelers	= \$196.3 million
"Tourist" Expenditures in Massachusetts in 1963	= \$898.7 million

c. Comment on the Massachusetts Method

The complexity of this method is more apparent than real. A large number of computational steps are involved, which makes effective summarization of this approach difficult. However, none of these computations are difficult and the entire series could be readily performed on a desk calculator.

The fact that runs of the Passenger Transportation Survey can be purchased for a state or a block of states reduces the dependence on national averages to a large degree, while the method outlined above could be further "localized" by means of field surveys of items such as the distribution of room and non-room spending in the commercial lodging places within a given state.

This method has two great advantages -- it is cheap, since it can be run entirely from published data, and it reduces unsupported assumptions to a minimum. The only arbitrary figure used in working this method is the 85% allocation of non-lodging expenditures per traveler night to those who did not stay in commercial lodgings.

The major disadvantage of this method is that it does not include three important categories of expenditure which are often considered as items of tourist expenditure. These are (1) expenditures made by day-trippers, (2) expenditures made "at home" as part of pre-trip preparations, e.g. purchases of camp gear, hiking kit, outboard motors, etc. and (3) capital outlays on second homes. Since these three categories could be estimated in other ways and added to the result obtained from the Census data, this disadvantage is too small to outweigh the considerable advantages of this approach.

3. The Per Capita Sales Method

This approach is mentioned more for completeness than by way of recommendation. It has been severely criticized ⁽²⁴⁾ and the New Hampshire Department of Economic Development, its foremost user, has expressed doubts as to its validity in a recent study. ⁽²⁵⁾ Basically this method involves a comparison of the per capita sales of a number of goods and services in New Hampshire with national averages. Where New Hampshire per capita spending exceeded national levels in a given category of goods, the excess was ascribed to tourist spending. Some adjustments were made for such factors as climate, the degree of urbanization and the size of the resident population.

Having already built a number of dubious assumptions into the data used, the New Hampshire per capita sales method then proceeded to adjust them in view of the fact that the state's per capita income is 8% lower than the national average, and that income elasticity of demand will cause this to be more significant in some types of retail sales than others. A number of heroic assumptions were involved in this process which leave its results open to serious question.

4. The Mileage Approach

One practitioner in the field of travel and tourism ⁽²⁶⁾ has developed an approach to estimating tourist expenditures which involves using some national total for tourist expenditures and allocating some percentage of it to a given state on the basis of certain travel data and selected retail sales data. This method has been applied in Tennessee in 1955 and North Carolina in 1959 and 1964. ⁽²⁷⁾

This method involves taking an estimate of the total mileage traveled in a given state in a year and converting this into a percentage of all travel in the U. S. A. for that year. This percentage is then applied to the national total for tourist expenditures to give that

state's total. This total is then further broken down by means of certain averages and percentages derived from selected retail sales.

There is great difficulty in finding a generally agreed upon national total for tourist expenditures, a problem which was discussed earlier in this chapter, and the mileage method involves many heroic assumptions. Another author who examined the mileage method in detail has concluded that "the principal objection to this approach...is that it assumes that the pattern of pleasure or vacation travel among the states is identical with the pattern of all travel, vacation and nonvacation." (28)

5. A Comparison of Some Recent Studies

Table 2-6 sets out the results of sixteen recent studies, of which the oldest refers to tourist expenditures in 1956 while the most recent refers to the pattern obtaining in 1963. Since this seven-year period is too short for consumer preferences to have altered radically, the results are broadly comparable. A comparability problem does occur with definitions, but a discussion of this is beyond the scope of this chapter.

The table should serve as a warning against using across-the-board percentage figures. The location of a given state, its geography and its attractiveness to tourists must all be considered before using rules of thumb derived from other states.

Kansas, for example, is a "bridge" state, with many tourists driving straight through the state as rapidly as possible. Indeed, in 1952 over 39% of all tourists visiting Kansas did not spend a single night there.⁽²⁹⁾ Consequently that percentage of the tourist's dollar devoted to transportation in Kansas is far higher than in most other states. Conversely, Hawaii is a state where a majority of all tourists concentrate on one small island -- Oahu. Travel is slight and mainly by taxi. Therefore, it is no surprise that transportation constitutes only 2.6% of the daily tourist budget in Hawaii, which excludes transportation to and from the island. The low figure for transportation in Florida obtains because only automobile transportation expenses were included in the reported results. The expense of air or rail travel was probably included in the "other" category, which explains why it is well above average.

The data in Table 2-6 should be used with great caution. Much depends on the nature of the sample used, the design of the questionnaire employed and the time of the year at which the survey is conducted. It is interesting to compare the Kansas figures shown in Table 2-6, which were as of 1956, with those given in the 1952 Kansas Tourist Survey.⁽³⁰⁾

The 1952 survey showed an average daily expenditure for pleasure travel of \$7.39. Four years later this was reported as being \$6.08. The 1952 study showed only 12.9% of the tourist's dollar being devoted to lodging, while 35.0% was devoted to food and drink. A further

TABLE 2-6

BREAKDOWN OF TOURIST EXPENDITURES ACCORDING TO 16 STUDIES

<u>State in Which Study was Made</u>	<u>% Spent For</u>		<u>% Spent For</u>		<u>Average Daily Expenditure</u>
	<u>Lodging</u>	<u>Food & Meals</u>	<u>Transpor- tation</u>	<u>Other Purposes</u>	
Arkansas	20.7	33.7	23.1	22.5	\$ 5.37
Colorado	24.4	27.1	24.2	24.3	9.30
Florida	23.6	27.5	8.9	40.0	15.76
Hawaii	19.9	22.7	2.6	54.8	30.80
Kansas	20.3	27.5	40.0	12.2	6.08
Minnesota	28.2	21.2	24.5	26.1	7.11
Missouri	13.1	28.0	29.1	29.8	7.50
Montana	27.0	28.2	33.6	11.2	9.85
North Dakota	25.9	30.0	23.0	21.1	6.71
Oklahoma	32.6	16.3	32.5	18.6	6.27
South Dakota	16.9	31.0	24.8	27.3	7.91
Texas	24.0	27.0	30.1	18.9	7.85
Utah	20.3	20.0	16.5	43.2	13.07
Washington	19.0	27.9	28.2	24.9	7.99
Californians, Inc.	22.0	30.7	16.4	30.9	not available
N.A.T.O.	21.0	27.0	22.0	30.0	not available
Average of 16 Studies	22.4%	26.6%	23.7%	27.2%	

Sources: These are given in footnote 10 in the same order as the states are arranged above.

Note: The years in which these data were collected are also cited in footnote 10.

41.1% of the 1952 automobile tourist's dollar was devoted to transportation, with 10.7% going to "other purposes." Several of these percentages diverge so widely from those obtaining four years later that one can only conclude that one or the other of the two studies, perhaps both, is wide of the mark.

6. The ORRRC Data

A final source for published data on average expenditures remains to be mentioned. This is the Outdoor Recreation Resources Review Commission Study Report 19, entitled the National Recreation Survey.⁽³¹⁾ Table 5.44 in that report contains a statement of average expenditures made while away from home by people on vacation, people on trips and people on outings, during the year June 1960 - May 1961. Since these data are arranged by both region and family income groups they are especially useful in making studies where a fairly reliable figure is needed quickly and cheaply.

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CHAPTER 3

DIRECT METHODS OF MEASURING TOURIST SPENDING

A. DIRECT OBSERVATION AT THE RETAIL STORE

Without doubt this method is the most precise approach yet developed for measuring tourist expenditures and the most expensive. It involves some person, either a trained enumerator or a helpful storekeeper, asking each person who comes into his store and makes a purchase whether or not he is a tourist. If the person says that he is a tourist, then the amount and nature of his purchases are noted down on a tally sheet. At the same time a running total is kept for all purchases, whether made by tourists or nontourists. This acts as a control, allowing the amount attributable to tourist expenditures to be expressed as a percentage of total receipts in that store.

Clearly, it would be difficult to check the amount of every store's receipts that was due to tourist expenditures. Faced with the typical budget constraint of a tourist study, it is impossible. Consequently, it is common practice in this method of measuring tourist expenditures to limit direct observation to those types of retail outlet which receive the greater part of the tourist's expenditures. The problem which then arises is one of expanding this sample total into the universe which it represents. This can present major problems of data reliability.

B. THE JOHN RATHMELL STUDY OF ALEXANDRIA BAY (1)

The direct observation method was first used in a pilot study made by John M. Rathmell, a professor in the Graduate School of Business at Cornell University, at Alexandria Bay in 1955. This is a very small town located on the Saint Lawrence River in the Thousand Islands region. Its 1960 population was only 1,583. Rathmell deliberately chose it as a town which was located in an old recreational area and "relatively free from certain uncontrollable factors (such) as the presence of extensive manufacturing and the proximity of Metropolitan centers." (2)

The study period was July 11 to August 28, 1955 and consisted of 7 five-day weeks. One field worker -- the total manpower available -- spent one day per week in each of five stores, choosing a different day

from one week to the next to randomize the observations somewhat. The five stores selected were a service drug store, a grocery supermarket, a hardware store, a restaurant, and a gasoline service station.

A total of 3,781 transactions within these five stores were noted and classified according to the status of the respondent. Three classes were used: (1) Permanent residents of Alexandria Bay, (2) Summer residents (remaining for 31 days or more), and (3) Transients (persons passing through or remaining up to 30 days). We would equate the last two categories with the term "tourists."

Rathmell found that summer residents accounted for 10.3% of all dollar receipts in his sample of stores, while transients accounted for 52.0% of total receipts. The permanent residents accounted for the remaining 37.7% ⁽³⁾. Details of Rathmell's findings are presented in Table 3-1 below.

TABLE 3-1

PERCENTAGE OF RECEIPTS ATTRIBUTABLE TO TOURISTS
IN 5 STORES IN ALEXANDRIA BAY

<u>Type of Store</u>	<u>% of Receipts Due to Summer Residents</u>	<u>% of Receipts Due to Transients</u>	<u>% of Receipts Due to Tourists</u>
Drug Store	16.4	53.7	70.4
Grocery Supermarket	8.7	40.3	49.0
Hardware Store	18.9	36.7	55.6
Restaurant	4.8	79.5	84.3
Gasoline Service Station	2.9	58.7	61.6

Source: Rathmell Report, p. 12, Table 2.

Note: Rathmell does not make clear whether gas station receipts include sales of accessories and auto repair work as well as those from gas and oil sales.

The figures shown in Table 3-1 are significant in themselves as an index of the importance of tourism to towns like Alexandria Bay. However, they are given far greater significance by the fact that Rathmell can supply a dollar total to which they can be applied -- \$6,800.

As a note of caution, this author does not feel that these percentages have any validity outside Alexandria Bay, since the sample used by Rathmell was small and probably biased, a problem which will now be discussed.

Comment on the Rathmell Study

Rathmell wisely avoided any attempt to expand his data by arithmetic or statistical means to represent the cash value of tourism for the whole of Alexandria Bay. Such an attempt would have been most questionable, due to the small size of the sample. However, this method could clearly be used in producing estimates for small geographical areas like Alexandria Bay. Obviously, the sample used might have to be considerably broadened.

Rathmell admits the injection of bias into his sample due to the fact that the enumerator did not work after 6 p.m., whereas, several stores in his sample stayed open in the evening. During the evenings "it was observed that permanent residents were more in evidence." (4) This bias may have distorted the true percentage share of receipts due to permanent residents.

C. THE VERMONT STATEWIDE SURVEY OF 1960-1961 (5)

Whereas the Rathmell study is significant as an attempt to use direct observation of retail sales at the local level, the Vermont study is important as an attempt to apply direct observation at the state level. So far as this author has been able to discover, the Vermont study is unique in its statewide application of direct observation.

As in the Rathmell study, a selection was made of those retail and service stores which were most likely to benefit from tourist expenditures. The selection made was fairly broad. The types of business selected and their Standard Industrial Classification (SIC) numbers are listed in Table 3-2. on the following page.

A sample of 254 establishments was selected to represent these types of business. This sample was approximately 5% of the 5,200 businesses in these SIC groups in Vermont. The design of this sample, which was carefully structured so as to be representative of both the type of business represented and its geographical distribution within the state, is fully explained on pages 128 through 135 of The Tourist and Recreation Industry in Vermont.

TABLE 3-2

ESTABLISHMENTS SAMPLED IN VERMONT, WITH PERCENTAGE
OF RECEIPTS ATTRIBUTABLE TO TOURISTS

<u>Standard Industrial Classification Number</u>	<u>Establishment Class</u>	<u>% of Receipts Due to Tourists</u>
5211	Building Materials Dealers	2.1
5251	Hardware Stores	4.7
5311	General Merchandise Stores	9.7
5411	Food Stores	4.5
5541	Gas Stations and Garages	16.4
5599	Boat Dealers	22.0
5612	Apparel Stores	11.6
5712	Furniture Stores	10.8
5812	Eating Places	35.5
5912	Drug Stores	7.0
5952	Sporting Goods Stores	12.5
5994	Cigar and Newstands	3.7
5995	Gift and Souvenir Shops	49.5
7211	Laundries and Dry Cleaners	2.1
7241	Beauty and Barber Shops	5.7
7621	Radio and TV Repair Shops	2.6
7831/7931	Drive-In's and Bowling Alleys	13.2

Total Sales Reported = \$1,823,857.

That amount attributable to Tourists = 8.5%

Source: The Tourist and Recreation Industry in Vermont, pp. 82-83

Somewhat more than 1,000 establishments in selected areas were asked to participate in the survey. However, by the time the survey began on October 1, 1960, only 185 establishments had agreed to participate. Several others subsequently agreed, but this was countered by a large number which dropped out as the study progressed. When the survey terminated on September 30, 1961, some 171 establishments nominally remained in the survey. Only 139 establishments furnished useable returns throughout the survey period. This unfortunate history indicates a major problem in using this method -- that of obtaining lasting cooperation from a sufficiently large number of establishments to make the sample meaningful.

The Vermont study used 26 survey dates spread over the calendar year from October 1, 1960 to September 30, 1961. These dates were so distributed that every day of the week, except Sunday, was represented at least once. On the designated survey dates, the attendants at the business or retail outlet taking records asked all customers whom they did not recognize as local residents to identify themselves. Four categories were used:

1. Out-of-State Tourists
2. Summer or Winter Seasonal Residents
3. Vacationing Vermonters (who were considered to be tourists by this report)
4. Canadian Visitors

The sales to each category of customer were recorded on special tally sheets, as were the total sales for each day. In some types of establishments, particularly supermarket stores, gasoline stations, and restaurants, special assistants were hired to gather this information since it was obvious that the regular attendant could not service his customer and maintain the tally sheets efficiently.

The outline results of the Vermont Study are indicated briefly in the third column of Table 3-2 which shows that percentage of total receipts attributable to tourists. It is unfortunate that the use of a different scheme of classification in the 1962 New Hampshire report limits direct comparison between the two reports to two categories. These are "Eating Places," where the 35% New Hampshire figure is very close to the 35.5% Vermont figure, and for "Gasoline Service Stations." In this last category, the Vermont report showed that only 16.4% of total receipts were attributable to tourists. This was found to be something of an understatement (6), but is still well below the 25% figure used in New Hampshire.

Bias in the Vermont Study

The authors of the study concluded that its results represented a conservative estimate of the influence of tourist and recreational expenditures on the receipts of the establishments sampled "because of

the limitations in the sample and the timing of the survey during the poor skiing winter and recession of 1960-61." (7)

The 171 firms still remaining in the survey at its termination date represented only 3.3% of the 5,200 Vermont establishments. This was a rather small sample, but was believed to be representative for the following reason: the participating establishments had been asked to report their total 1958 sales, a series of figures which were found to sum to 10.3% of the 1958 state-wide total for those classes of establishment. Consequently, it was assumed that this 3.3% sample of all establishments in the selected classes represented about a 10% sample of all receipts in the selected classes.

Variations occurred in the level of response from the 17 categories of establishment listed in Table 3-2. The response level achieved varied from a low of 69% of expected response for boat dealers to a high of 96% of expected response from cigar and news-stand proprietors. (8) It may well have been the case that the days when the tally sheets should have been kept but were neglected, were the very days on which sales were most brisk. Consequently, a measure of bias may have entered the results. This often happens when a limited enumeration crew is faced with too much work to perform during the time allotted for it. This problem occurs in roadside interviews with limited interviewing crews, where the percentage of motorists interviewed tends to vary in inverse relationship to the volume of traffic. It is thus hardly surprising that the Vermont study found that where hired enumerators were used in gasoline stations to keep the tally sheets in place of the usual gasoline station attendants, the volume of sales to all vacationers appeared to rise by about 15%.

Comment on the Vermont Study

This study consumed the major part of a \$40,000 budget allocated to a general overview of the entire tourist industry in Vermont. This indicates that, even when the number of paid enumerators is kept to a minimum, the direct observation method will be expensive. The results of such a method, however, may well justify the cost. They are accurate and detailed. They provide information which could not be obtained from any published source.

The Vermont study revealed substantial variation in tourist and recreational purchases in both geographical location and type of business. It was found that a large part of the receipts of several classes of business, not usually considered as recipients of the tourist dollar, were due to tourist and recreational spending. Apparel stores, for example, received 11.6% of their receipts from tourists, while furniture stores received 10.8% of their receipts from this source and general merchandise stores some 9.7% of their receipts.

The high figure for apparel and general merchandise was due principally to establishments located in northern Vermont, where a considerable number of Canadian tourists made purchases. However, the high figure for furniture stores was largely due to the sales patterns in southern Vermont outlets, where purchases by summer residents and vacationing Vermonters were important.

It is necessary to read the original Vermont report in order to appreciate the vast amount of information which was gathered by this study and the fineness of its detail. Only when the direct observation method has been used in several other states will it be possible to make a more thorough evaluation of its overall advantages and disadvantages. None the less, it would seem to have considerable potential, especially as a means of moving the measurement of tourist expenditures and their economic impact out of the realm of educated guesswork.

D. DIRECT INTERVIEWING OF THE TOURIST

This method is widely used in measuring tourist expenditures. It is most commonly found in surveys of out-of-state motorists. Many examples of these are to be found in all parts of the U.S.A. The three which will be discussed here in detail are the 1952 Kansas Tourist Study, the 1956 Survey of Out-of-State Motorists in Connecticut, and the 1963 Nevada Out-of-State Visitor Survey. (9)

In each of these studies a common approach was used. A large number of motorists, about the leave the state, were interviewed and asked a number of questions relating to their origin and destination, the purpose of their trip, and the number of days which they had spent in the state. They were also asked about the accommodation they had used and the money which they had spent. In the Kansas study a total of 10,011 usable interviews were made with out-of-state motorists. In Connecticut the number was 12,979. The Nevada study, which was generally more thorough than the others, made 22,500 interviews with out-of-state motorists.

The driver was requested to estimate how much he had spent during his trip through the state he was about to leave. Generally he was asked to supply this information in six to eight categories. The Kansas study used the categories of food in eating establishments, other food and beverages, lodging, purchases of gasoline and oil, other automobile expenses, and "other expenses." This is fairly typical for this genre of study.

The need to ask a person to recall how much he has spent, and to require him to compartmentalize his expenditures into categories which are suddenly thrust upon him by the interviewer, is the main weakness of this method. It will be recalled that when a certain

consumer research study was made in New York City in 1964, some 9% of the sample stated that they currently read Collier's magazine. Furthermore, 7% stated that if they could read only one magazine on the list shown to them, they would choose Collier's. Unfortunately, Collier's had ceased publication in January 1957. ⁽¹⁰⁾ This is just one of many examples on record of erroneous recall, due to lack of knowledge or poor memory. ⁽¹¹⁾

Russell Ackoff has written "We cannot expect a respondent to remember very far back. When he says he has read a nonexistent book, he is probably not lying deliberately; the title sounds familiar, and he concludes that he must have read it, or he has doubts and decides to 'play safe'." ⁽¹²⁾ The author of this chapter is of the opinion that expenditure data obtained by interviewing are of limited value due to the serious problems of erroneous recall.

The growing use of charge accounts and nationwide credit cards further undermines the validity of the interview method, since it has been discovered that the users of these cards tend not to regard sums charged as "expenditure." ⁽¹³⁾ Since it is now possible to charge such a wide range of expenses as motel rooms, meals, admission fees, gasoline and airplane tickets, the interviewee's concept of "expenditure" may be altogether different from that of the questionnaire designer.

For those who are willing to accept this method there are still further difficulties. Unless the interviews of motorists are supplemented by studies of people using other modes of transportation, the study cannot be representative of all tourists. Neither the Kansas study nor the Connecticut study considered anything other than car-carried tourists. The Nevada study made special interview surveys of tourists leaving the state by bus, train, and plane. A method almost identical to this approach has been used for several years now by the Florida Development Commission in measuring tourist expenditures in that state.

Another problem is that of excluding bias from the sample used. Unless all major exits from the state are covered for a reasonable period, bias may well occur. The Nevada study used 6 A.M. to 10 P.M. as its study period and 24-hour counts were maintained at some stations for a few days in order to establish a control for the hours 10 P.M. to 6 P.M. Furthermore, the Nevada and the Kansas studies made both summer and winter interviews in order that differences in the behavior and preferences of summer and winter tourist were reflected accurately in the sample data. In a highly urbanized state such as Connecticut, which has many excellent highway connections with surrounding states, bias will inevitably enter the sample since it is not possible to cover all routes.

A final difficulty lies in expanding the sample into a valid statewide total. This can only be done accurately if mechanical traffic recorders are maintained at all interview sites during the survey year. From the traffic recorders information on volumes and hours of travel is obtained, from which adjusted daily traffic volumes can be developed. If the interview samples are then factored to adjust for hourly and daily variations, an average day can be derived for the season. Multiplying this value by the number of days in the season, the seasonal total can be obtained.

Conclusions

Direct observation of the motorist is not a cheap method of measuring tourist spending, although an interview study of this kind can be put to several uses, such as assisting the state highway planning board and state promotional agencies. Unless one believes in total recall in the average human mind, the method is not accurate. The question then becomes one of whether this method is so much cheaper than the direct observation of retail outlets as to make it the preferred approach. If it is, the next question is whether it is still more accurate, in relation to its cost, than an indirect approach such as the Massachusetts method. The answer to this is probably negative. However, the out-of-state automobile study can be expected to enjoy a strong following in the future because of the large amounts of valid information which it generates on topics other than tourist expenditures. This would include origins and destinations, travel preferences, and reaction to promotion and advertising.

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CHAPTER 4

THE ECONOMIC IMPACT OF TOURISM AND RECREATION ON A REGIONAL OR LOCAL ECONOMY

A. INTRODUCTION

The development of tourism and recreational facilities has often been prescribed as a cure for ailing economies. It has been alleged that tourism will increase the inflow of revenues into a regional or local economy and thereby increase employment and per capita incomes. Before embarking on such a program, the decision makers of the community should make a thorough analysis of the economic impact of tourism on their specific locality. In this respect the costs and benefits to the community of encouraging tourism should be evaluated in terms similar to those applied to other industries. Several factors are to be evaluated:

- (1) What will be the effect on employment, and specifically, can the tourism industry provide employment for previously unemployed resources?
- (2) What will be the effect of this development on incomes in the region; which groups will be the principal beneficiaries?
- (3) How does the rate of return on investment in the tourism industry compare with that of other industries?
- (4) What additional problems for development may be caused by the growth of tourism and recreation?

Although no one study has considered all of these points, several studies have begun the analysis of different aspects of the economic impact of tourism. To the extent that these methods and conclusions can be generalized, this chapter will attempt to answer the question, "what is the economic impact of recreation/tourism on a local economy?"

B. EFFECT ON EMPLOYMENT

One of the most important questions to be answered is, "how much employment can be generated?" It is, of course, impossible to directly enumerate the number of employees in a given area who owe their

jobs to tourists, since most tourist-oriented trades serve both residents and non-residents. Workers are not hired to exclusively serve one group or the other.

An employment estimation method was developed by Bird and Miller in their study of tourist trade in the Missouri Ozarks. (1) They make the assumption that there is a fairly constant relationship between the number of employees and the volume of business each can handle efficiently for different types of business activities. The number of employees who were hired as a result of the tourist trade can then be estimated by applying volume of business per worker figures to the volume of business attributable to the tourist trade.

The New Hampshire Inventory of Lodging Places surveyed job generation by tourists in eight job centers, which contained 40.5% of the employment in lodging places and 31% of the state's total of children's summer camp employment. (2) These establishments had a peak of 3,297 paid employees (owners included) and 104 unpaid family workers, in 1960. Expanding the survey to derive state-wide employment, it was estimated that 25,000 jobs in the peak summer vacation period and 4,000 to 5,000 jobs in the winter season, were generated by tourist activities.

Some areas of the tourist business are labor intensive while others are quite the reverse. In a study of the Ozarks, it was found that an increase in tourist trade would provide more jobs in retail and service firms than would be made available if business activity were increased through normal purchases by local residents. It was estimated, for example, that one worker was hired for each \$53,000 of business in a farm supply store, whereas nine times as many employees would have been hired to handle an equal volume of business in a restaurant. (3) On the other hand, the proposed recreation area at the Sam Rayburn Reservoir in eastern Texas would require, in the first phase of its development, an expenditure of \$1.6 million, an investment which would generate the equivalent of only 60 year-round jobs. (4) Phase II of the reservoir's recreational development will require more than \$800,000 in additional investment, and is expected to bring the annual employment total to 100 jobs. (5) In general, small service industries will provide more employment per dollar expended than large park projects, which involve considerable expenditures for land acquisition and construction.

The recreation/tourist industry's effect on a local unemployment problem also depends significantly on the type of business created. It further depends on the particular region of the country and the kinds of skills available in that area. Bird and Miller were interested, in their study of the Ozarks, to ascertain if rural residents profited significantly from the tourist developments in their area. (6) They found that there was no significant difference between the percentage of employees from rural areas hired for unskilled and semiskilled work. The proportions were 41.9% and 44.1% respectively. However, a significantly smaller percentage of rural residents attained managerial positions.

The proportions were 41.9% and 44.1% respectively. However, a significantly smaller percentage of rural residents attained managerial positions (34.2%). The authors dismiss this difference as being due to the fact that operators, who were generally town residents, often hired relatives who were also urban dwellers. Whether or not this is true in the Ozarks, it is likely that the more skilled employees of the tourist industry are out-of-state residents, while the less skilled jobs are filled by local residents.

The skills needed in the tourist industry are often those which were most likely to be underemployed. For example, Bird found that 62% of the tourist oriented jobs (of the retail and personal service types) were "unskilled." Furthermore, the wage rates were relatively low, as Table 4-1 illustrates.

Table 4-1

AVERAGE ANNUAL WAGES IN RETAIL AND SERVICE FIRMS IN THE OZARKS: 1959

<u>Skill Category</u>	<u>Income in Dollars Per Year</u>	
	<u>Male</u>	<u>Female</u>
Nonskilled	\$2,618	\$1,715
Semiskilled	3,181	2,239
Managerial	3,657	*

* no women listed

Source: Bird and Miller, Contributions of Tourist Trade to Income of People in Missouri Ozarks. pp. 40-43.

When the main breadwinner's earnings are low, family income can be boosted by employing family members. The low average wages shown above may help to explain the fact that almost 25% of all employees in retail and service firms in the Missouri Ozarks were related to the store operator. (7)

C. EFFECT ON INCOME

Tourist spending may provide a windfall to established businesses, while the hope of attracting the tourist dollar may cause new firms to spring up in the community which successfully develops the tourist industry. Money spent by tourists can affect the local economy in several ways, which will now be examined.

1. Primary Effects

The most obvious way in which tourists affect local incomes is through the purchase of goods and services. When an overnight visitor stays to see a film in the local movie theater, he brings additional income to the community. Tourist spending may be very important to marginal businesses. As Robinson points out (8) the "sunk investment" costs are likely to be high in the service trades, which are most likely to be affected by tourism, and are firms which frequently operate below capacity. In this case, the additional tourist business allows average costs to be lowered through fuller utilization of plant and a more profitable operation.

In some cases, tourist spending can make the difference between a successful and an unprofitable enterprise. Of course, not all businesses are affected in the same degree by tourist spending, as the Vermont study of retail receipts indicates. The reader should consult Table 2-1 in Chapter 2 of this report for an indication of the range of impact involved.

State governments often benefit directly from tourist expenditures. Fees are paid for the use of state park facilities, for non-resident hunting and fishing licenses, and for state turnpikes and toll bridges. The state also benefits from the additions to cigarette, gasoline, and liquor taxes. In Maine it was estimated that in 1959, tourists contributed about \$469,000 to the state government in the form of cigarette taxes. (9) In addition, it was estimated that if each tourist entering Maine by car traveled 782 miles in the state and got an average of 16 miles per gallon, the state's gasoline tax of 7¢ per gallon netted the government more than \$1.5 million in 1959. (10)

The state will also gain from property taxes on seasonal homes owned by out-of-state residents and on tourist-oriented business. In Maine, for example, 40% of the recreation property (commercial lodgings, seasonal residences, eating places, and similar facilities) are owned by out-of-state residents. (11) The highest proportion of out-of-state ownership of vacation property is found in the West Penobscot Bay Coast area and the Mount Desert-Hancock Coast area where 56% and 65% respectively of the recreation property falls in this category. (12)

However, there are some cases where the initial effect of the development of tourist industries is a loss in revenue to the state. When the government buys land for a reservoir or national park, the land is lost to the local tax rolls. The Federal Government, recognizing that this may be a serious

TABLE 4-2

IMPACT OF RESERVOIRS ON COUNTY REVENUES IN TEXAS

Reservoir	County	Acres bought for reservoir	First year tax loss to county	Second year revenue from leases	1959 Revenue from leases	Av. Revenue from leases
Texoma	Bryan	27,419	\$ 7,450	\$ 760	\$14,350	\$ 9,655
	Marshall	60,220	16,500	3,500	24,700	21,558
	Johnston	27,366	7,400	3,120	10,400	9,521
	Love	19,247	5,250	1,850	9,200	7,195
Fort Gibson	Cherokee	13,419	4,500	5,510	12,150	8,783
	Wagoner	39,177	13,500	16,700	28,710	25,693
	Mayes	17,063	6,000	31,750	41,300	36,057
Tenkiller	Cherokee	23,706	4,500	3,710	8,420	5,863
	Sequoyah	2,849	500	650	3,870	3,100
Norfork	Baxter	33,000	2,600	2,985	10,150	9,330
Bull Shoals	Baxter	4,900	550	3,815	6,445	5,623
	Boone	13,000	1,500	7,630	15,190	10,876
	Marion	43,200	4,900	8,770	18,215	13,091

Source: Corps of Engineers, quoted in Economic Studies of Outdoor Recreation, ORRRC Study Report 24, p. 149.

loss to the localities where Federal programs are undertaken, pays 75% of the revenue from concessions and other types of leases on reservoirs to the state government involved in order to offset this loss. (13) Table 4-2 shows how this method of compensation has worked in the case of five reservoirs which were built in Oklahoma and Texas during the 1950's.

Of the 13 counties which stood to be compensated, only five received less money from the government in the second year of operation than they had ordinarily collected from tax revenues. In all 13 cases, the average revenue after seven years was well above the initial loss in taxes. Marshall County (Texoma Reservoir) lost the greatest sum (\$16,500) from the flooding of farm land. Although the second year revenue from leases was still below the initial tax loss, the average revenue from leases for the period, some \$21,558, adequately covered this loss.

The data presented in Table 4-2 refer only to tax loss and compensation. The regional economic development induced by the reservoirs in most cases created other sources of revenue for the state in the form of sales taxes and increased property taxes on the surrounding land, which increased in value because of the reservoirs.

The development of reservoirs in Texas and Oklahoma is, in fact, a good example of the effectiveness of a "recreational growth point" (such as a new reservoir) in stimulating the economic development of an entire region. Arthur L. Moore defines five stages of development and increase in economic activity caused by the reservoirs. (14) These are:

- (1) Land speculation. This phase begins as soon as construction is authorized and continues until the final site is chosen.
- (2) Construction. This phase may last 4 to 5 years and has a marked impact. Mr. Moore reports that "sometimes construction provides the first big payroll ever experienced by the affected communities."
- (3) Recreation. This phase centers around the new development and may involve investments of up to \$200,000 in a single concession. The variety of new investments is large, ranging from boat docks, picnic grounds and access roads to motels, lodges, and restaurants.
- (4) Nearby towns. In this phase there is a shift from "an economy devoted to serving a small farm low-income economy to one serving the needs of visitors who have an urban point of view and expect services and goods equal to urban standards."

- (5) Homesite development around the lake. This creates a continuing source of income for the construction industry as well as for the merchants in nearby towns.

While the recreation/tourism industry may revitalize the region surrounding a new tourist enterprise, one growth point cannot be expected to have a major effect on the entire economy of a large state. The impact of recreation is apt to be significant for certain regions of a state, while it hardly affects others. In Maine, for example, about 82% of the vacation property was concentrated in the southern and coastal regions in 1959, where as much as 38% of the value of real property was recreation-oriented. (15) However, in some of the northern regions of Maine, only 3.3% of the real property assessed was devoted to recreation in 1959. Thus, while tourism can be influential in developing regions of a state with recreation potential (in Maine's case, the attraction is the seacoast), it cannot be expected to provide uniform development throughout a state.

2. Secondary or Multiplier Effects

In addition to the direct impact of tourist spending, there are the secondary or multiplier effects. If a tourist spends \$100 in a hotel, and the hotel owner spends this sum in the local grocery store, the total cash flow of the region is increased by \$200. If the local grocer then orders more supplies from a nearby farmer, the cash flow is increased even further. The magnitude of the "multiplier" or respending effect depends on the percentage of goods consumed within a region which are actually produced in that region. If, for example, the hypothetical hotel owner had spent his \$100 in another city, his home town would not have received any of the benefits deriving from the multiplier effect. The definition of the geographical region used in analyzing the multiplier effect is therefore important. The more narrowly it is defined, the lower will be the percentage of money respent within it.

The nature of the businesses within a region will also cause variation in the multiplier effect. An example is the motel industry. Franchised motels, such as the Holiday Inns or Howard Johnsons, usually buy their supplies through a central commissary. (16) Consequently they are likely to create a smaller secondary impact on the local economy than is a Ma and Pa type motel which purchases supplies locally.

In the Missouri Ozarks it was found that on the average, 4.9% of the value of retail sales was accounted for by locally produced goods, valued at \$15.7 million in 1959. By applying the

percentage of total sales that were accounted for by tourists to the \$15.7 million figure, it was determined that tourists purchased \$2.5 million of locally produced goods in 1959. (17) This method, of course, only measures the multiplier effect of purchases of goods. A secondary effect is also set up when services are bought, or when employees' wages are attributable to the tourist trade.

In a New Hampshire study, the multiplier effect of tourist generated income was estimated in a comprehensive manner. (18) It was determined that of the \$135 million spent by vacationers in New Hampshire in 1958, only \$40 million was allotted for wages and salaries, profits, rents, and interest. (19) The rest was spent by tourist businesses for the purchase of goods and services from other businesses. Inasmuch as these purchases were made in New Hampshire, they contributed to the secondary impact.

To estimate the true impact on New Hampshire's economy of these factor payments it is necessary to determine how much of the \$40 million remained in the state. About 40% of New Hampshire's summer employees are not residents of the state. These employees were mostly students and received far less than 40% of the annual wage payments. In addition, approximately one-eighth of travel-serving businesses were owned by out-of-state residents. To take account of these two factors, the authors of the New Hampshire study assumed 20-25% of the income generated in the tourist industry was received by residents of other states.

However, not all of the \$8 to \$10 million earned by out-of-state residents was lost to New Hampshire. It was assumed that, during a summer's stay, about 30% of the incomes earned by out-of-state residents were spent in New Hampshire. The New Hampshire residents themselves spent only about three-quarters of the remaining \$30-\$32 million in their state. The rest went into Federal and state taxes, savings, and "imports" from other states. On the basis of these assumptions, it was estimated that slightly less than \$30 million of the initial \$40 million spent in factor payments, was ultimately spent in New Hampshire in 1958. The successive rounds of spending, where leakages from the system occur at every stage, were estimated to add up to between \$60 and \$65 million of income within the state. (20)

Of the remaining \$95 million (of the \$135 million generated in the tourist industry), about \$20 million was collected by state and local governments and the rest was used for the purchase of materials and supplies. The authors found that approximately 25% of the goods purchased were obtained directly from out-of-state suppliers.

These assumptions lead to an overall estimate of \$160 million in income generated by this process. The total \$135 million in initial tourist outlays thus was responsible for approximately \$220 million of New Hampshire's total income in 1958.

D. RETURN ON INVESTMENT

In considering recreation/tourism as a form of investment or as part of a regional development plan, a number of pertinent questions should be asked. These would include: What size of investment is necessary? Should this investment be public, private, or a combination of both? Is the recreation/tourism industry the "best" investment from the viewpoint of the region's economy? How effective is recreation/tourism in advancing regional development? Each of these questions will now be discussed in turn.

1. Size of Investment Necessary

The size of investment necessary obviously depends greatly on the type of enterprise envisioned. Selling bait to fishermen and the construction of a recreational reservoir are two kinds of tourist-oriented activities. The former may require virtually no cash investment while the latter may need several million dollars. Very little information is available on the investment required in various tourist trades. However, one study was made of the dollar investment in Wisconsin Camps. (21) Table 4-3 summarizes its findings.

Table 4-3

DOLLAR INVESTMENT IN WISCONSIN CAMPS IN 1959

<u>Amount</u>	<u>Private Camps</u>	<u>Tax Exempt Camps</u>
0-\$25,000	2	5
\$ 25,001- 50,000	7	9
50,001- 75,000	12	13
75,001-100,000	16	20
100,001-150,000	11	13
150,001-200,000	7	7
200,001-300,000	3	13
300,001-and up	4	14

Source: I.V. Fine and E.E. Werner. Juvenile Camps in Wisconsin, University of Wisconsin, Madison, 1960, p.11.

Note: Respondents were asked to indicate their approximate dollar investment in terms of "today's costs."

It will be seen that the most frequent level of investment in tax exempt camps was in the \$75-001-\$100,000 range. About 2/3 of the private camps had investments of between \$50,001 and \$150,000. Almost 50% of the tax exempt camps also fell into this range, while another 25% had investments of more than \$200,000. These large investments were undoubtedly attributable to their tax exempt status.

There is some evidence that when the investment is small, the rate of return may be low--or even negative. In a study of pay fishing lakes in Ohio, it was found that the average investment was \$13,776, ranging from a low of \$7,600 to a high of \$29,105. (22) The returns to family labor and management varied from a loss of \$179 to a profit of \$1,301. The average return was \$397. In this case a minimum level of investment brought an average rate of return of 2.9%--which is less than what one could have earned in a savings bank.

Some larger recreational enterprises have shown much better returns on investment. For example in Vermont, 20 major ski area operators indicated that their net value of assets at the beginning of the 1960-61 season was \$818 million, while their income totaled \$4.1 million for the 1959-60 season. (23) If their assets had not decreased in the one year interval, which is most unlikely, these data indicate an exceptionally high rate of return.

2. Public Versus Private Investment

Public investment in recreational facilities may often be complementary to the private tourist trade, rather than competitive with it. As a study of Ohio outdoor recreational facilities put it:

"Public recreational facilities can be of help to private concerns by providing attractions which bring more people to the area. For instance, there are some privately owned campgrounds near state parks which enjoy success. One pay lake operator reports that his business improved considerably after a public recreation area was established nearby." (24)

The development of a state park might well be justified, not only in terms of the revenue directly attributable to the park, but also in relation to the income which it would bring to retail stores, restaurants, motels, and similar facilities in the surrounding area.

3. The Comparative Impact of Recreation/Tourism and Other Industries on Incomes and Employment

Very few analysts have taken a hard look at the development potentials of the recreation/tourist industry as compared with other types of economic activity. One of the few studies in this area is a report to the National Park Service, entitled The Impact of the Proposed Redwood National Park on the Economy of Del Norte County, submitted by Arthur D. Little, Inc., in March, 1966. (25) This study, using econometric and statistical methodology, evaluates the expected structure of employment and income in Del Norte County, California, for 1968, 1973, and 1983 under two alternative hypotheses: 1) that a National Park is established, and 2) that industrial development is allowed to continue in its present pattern. Briefly, the findings were that in the short run (i.e. by 1973) more employment and income would be generated if there were no park. But in the long run (by 1983), both income and employment would be greater if a park were established.

4. The Use of the Recreation/Tourist Industry as a Development Tool

The success of tourism and recreation in increasing incomes and employment has perhaps been exaggerated. As a recent study of the tourism and recreation in Vermont states:

"It may be noted that the contribution of the tourist and recreation industry to the growth of economic activity in Vermont in the post-war period appears to have been less than half that of manufacturing. This is considerably below the 25 percent contribution claimed by some of the industry's more enthusiastic promoters in the state. Even a 10 to 12 percent contribution, however, is highly significant, particularly as the timing of an important segment of the industry, the ski business, occurs at a point of relatively low economic activity in the year. And a 10 percent contribution to the state's economy can easily be the difference between a going economy and a depressed one."(26)

E. ADDITIONAL PROBLEMS ASSOCIATED WITH DEVELOPMENT OF TOURISM AND RECREATIONAL INDUSTRIES

We have seen some evidence that the recreation/tourism industry can have a positive impact on employment and incomes. However, negative aspects must also be considered. These include the problem of seasonality, other causes of instability, and external costs.

1. Seasonality

The seasonality problem stems from the fact that at certain seasons of the year employment is at a maximum and tourist facilities are utilized to capacity, while at other seasons employment and incomes are low and tourist facilities stand empty. It is important to consider this when tourism is proposed as an economic development tool. Although tourism may boost employment in some seasons, it will induce unemployment in others. There is a definite social cost in providing full employment and full incomes only during the peak season.

Some localities have overcome this problem, to some extent, by developing both summer and winter recreational activities. In New Hampshire, for example, the ski industry keeps employment high in the otherwise slack winter months. Efforts have recently been made to maintain employment and revenues in the autumn, by promoting New Hampshire's colorful fall foliage as a tourist attraction. In spite of the fact that New Hampshire has made progress in alleviating the seasonality problem, 87% of the vacation travel expenditures were made in the three summer months, June through September, in 1958. (27)

Employment also shows large fluctuations. In New Hampshire in 1959, summer employment in the lodging business was 6.4 times as large as winter employment. Several sectors of the lodging business in New Hampshire showed even wider fluctuations in employment, as Table 4-4 shows:

TABLE 4-4					
INDICES OF MONTHLY FLUCTUATIONS IN TOTAL PAID EMPLOYMENT (INCLUDING ACTIVE PROPRIETORS) IN NEW HAMPSHIRE LODGING PLACES, 1959					
Month	Year-round Hotels	Seasonal Hotels	Motels	Rooming Houses	Children's Summer Camps
January	89.3	14.6	41.3	67.1	8.1
February	89.3	14.8	41.4	66.8	8.1
March	88.1	14.3	42.1	67.4	8.7
April	89.8	12.9	47.3	66.6	8.3
May	91.7	45.2	75.7	73.6	9.1
June	102.7	178.0	166.2	125.8	156.3
July	118.4	298.5	219.3	199.4	477.6
August	119.6	298.1	219.2	199.6	482.0
September	110.2	206.3	162.5	121.1	17.6
October	105.3	101.6	100.9	83.6	8.4
November	95.0	8.2	46.1	64.2	8.2
December	100.7	7.8	38.0	64.5	7.7

Source: New Hampshire Inventory of Lodging Places, 1960, quoted in
Vacation Travel Business in New Hampshire, A Survey and Analysis,
p. 83.

Note: Year-round monthly average = 100.

Bird and Miller have shown that, although employment varies seasonally, it does not vary as much as the number of visitors. In 1963, nearly 65% of the employees in hotels and motels in the Ozarks were employed full time, whereas the volume of hotel and motel business increased fourfold during the summer months. (28)

2. Other Causes of Economic Instability

Short run economic fluctuations probably have a large impact on the income derived from tourism. In a recession, families draw in their purse strings. Among the first things to be eliminated from the family budget are luxuries such as tourism. There appear to be no quantitative studies in this field. R. J. McCounen poses a very pertinent question when he writes: "How desirable is it to build communities which rely heavily on an economic activity which reflects, in a highly magnified way, the fluctuations in the general level of economic activity?"(29) From the viewpoint of optimal economic development, it is preferable to promote activities which will counteract, not reinforce, cyclical fluctuations in incomes and employment.

Furthermore, tourism and recreation are subject to change in tastes. Unpredictable changes in weather can also affect revenues from tourism adversely, especially in areas such as skiing. Is a healthy economy created when a region is heavily dependent on an industry subject to such variability? More research, in depth, is needed on this important issue.

3. External Costs

We have seen many evaluations of the benefits of tourism, but few analyses of its costs. In addition to capital costs, promotional costs, etc., there are some "external costs" which are often not fully considered. An example is the cost imposed upon land owners by damage and litter created by tourists. At a larger scale, a state thinking of increasing its camping and picnicking facilities might well consider the costs of the increased probability of forest fires.

F. CONCLUSIONS

It would be a mistake to generalize too greatly from the studies cited in this chapter. They were analyses of the impact of the recreation/tourism industry in specific regions, under unique local conditions. However, it is significant that they almost all place greater emphasis on the benefits of tourism than on its costs and drawbacks. For a more balanced view of tourism's economic impact, these negative aspects should be probed in depth.

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CHAPTER 5

FACTORS AFFECTING THE GROWTH OF TOURISM AND THE DEMAND FOR RECREATIONAL FACILITIES - METHODS OF PROJECTING THIS GROWTH

A. INTRODUCTION

The first step in projecting the demand for recreational facilities is to identify those factors which affect demand, and to make assumptions on, or empirical examinations of their probable future development. This is true whether the method of projection is a simple straight-line extrapolation of past demand, or a multiple regression analysis of socio-economic variables. Based on a survey of currently available literature, this chapter first identifies the relevant factors affecting demand for recreational and touristic facilities. The chapter next outlines various methods of projection, and evaluates their applicability to different sized regions.

B. FACTORS AFFECTING DEMAND

The factors affecting demand for recreation/tourism facilities can be grouped into two general categories: Socio-economic characteristics of the population, and the physical attributes of the facilities themselves.

✓ 1. Physical Factors

The physical factors include (a) time-distance required to make the vacation trip or travel to the recreational facility; (b) the mix of activity-possibilities available at a recreation site or during a given vacation trip; and (c) the degree of congestion at the recreation site (congestion of the travel route is included in the time-distance factor). Some physical factors can, however, be expressed in terms of socio-economic variables. For example, time-distance of travel to outdoor recreational facilities is approximated by the place of residence (urban or rural) of the population.

2. Socio-Economic Factors

The Outdoor Recreation Resources Review Commission sponsored a survey in November, 1959, and May, 1960, of the

TABLE 5-1

SOCIO-ECONOMIC CHARACTERISTICS RELEVANT TO PARTICIPATION IN RECREATION/TOURISM

Survey Research Center (ORRRC Study Report 20)	National Recreation Survey (ORRRC Study Report 19)
<u>Family Income</u>	<u>Family Income</u>
Under \$3,000	Less than \$1,500
\$3,000 - 4,999	\$1,500 - 2,999
\$5,000 - 7,499	\$3,000 - 4,499
\$7,500 - 9,999	\$4,500 - 5,999
\$10,000 - and over	\$6,000 - 7,999
	\$8,000 - 9,999
	\$10,000 - 14,999
	\$15,000 and over
<u>Education of Family Head</u>	<u>Education, age 25 or over</u>
Grade School, none; Some High School	4 years or less; 5-7 years; 8 years
Completed High School; some college	High School 1-3 years; High School 4 years
Has college degree	College 1-3 years; College 4 years or more
<u>Occupation of Family Head</u>	<u>All Employed, 14 and over</u>
Professional: Managers, Officials	Professional, technical and kindred workers
Sales Personnel, Clerical, Craftsmen	Managers, officials and proprietors, except
Laborers, Service Workers	farm. Clerical and sales workers (other
Farm Operators	white collar). Craftsmen, foremen and kind-
	red workers. Operatives and kindred workers,
	laborers, service workers (including private)
	Farm workers.
<u>Place of Residence</u>	<u>Place of Residence</u>
Cities: Suburban areas; adjacent areas:	Urban in SMSA: over 1 million
Outlying areas	Urban in SMSA: under 1 million
	Urban not in SMSA:
	Rural
	(SMSA = Standard Metropolitan Statistical
	Area as developed by the Census Bureau.)
<u>Age of Family Head</u>	<u>Age</u>
18-24; 25-34; 35-44; 45-54	12-17; 18-24; 25-44;
55-64; 65 and over	45-64; 65 and over
<u>Region</u>	<u>Major Region</u>
West, North Central, Northeast, South	West, North Central, Northeast, South
<u>Sex</u>	<u>Sex</u>
Male, Female	Male, Female
<u>Life Cycle</u>	<u>Physical Impairments</u>
Single adult under 45; Married, under	No impairments. Impairments not limiting.
45, no children; Married with children	Limiting impairments
over 4-1/2 and under 18; Married,	<u>State of Health</u>
over 45, no children; Single adult	Excellent; Good; Fair; Poor
over 45; Other	
<u>Race</u>	
White; Negro	Not considered
<u>Paid Vacation of Family Head</u>	
None; 1 week; 2 weeks; 3 weeks; 4 weeks	Not considered
or over. Self-employed. Not in	
labor force.	

Sources: Participation in Outdoor Recreation: Factors Affecting Demand
Among American Adults, ORRRC Study Report 20, (Left-hand column).

National Recreation Survey, ORRRC Study Report 19, (Right-hand column).

leisure-time activities of American adults. (1) The sample used represented a cross section of households throughout the nation. Questions were asked regarding participation in eleven different kinds of outdoor recreation activities, and the socio-economic characteristics of the respondents were noted on the interview forms. This survey, conducted by the Survey Research Center of the University of Michigan, classified respondents under ten socio-economic headings. The National Recreation Survey, conducted by the ORRRC staff in 1960 and 1961, used nine categories, somewhat different in coverage and scope. (2) The two sets of socio-economic categories are listed in Table 5-1.

Differences in participation among the subgroups can be examined in two ways: (a) Examining the activity related to each variable without adjustment for the possible influences of the other socio-economic variables, and (b) Examining the activity related to each variable while holding constant the influence of other variables which may be associated with it. The latter type of analysis goes by several names, such as "multivariate analysis," "multiple classification analysis," and "multiple regression analysis."

The second type of analysis is much more interesting and important, because its results can be interpreted causally. For example, it might show the extent to which outdoor recreation activity levels are attributable to family income levels. Thus, by holding all other factors constant, and hypothesizing an increase in family income, the corresponding increase in outdoor recreation activity can be predicted. Proceeding from a survey of the factors affecting outdoor recreation activity, therefore, a predictive method can be derived.

The predictive power of devices of this type, such as factor analysis, can be evaluated in terms of how much of the observed variance in recreation/tourism participation can be explained by the socio-economic factors used. If only a low percentage of the variance can be explained in this way, one might reasonably conclude that the "factors affecting" demand do not affect demand very much at all, in which case different explanations should be sought.

One should be cautious in using these analytical tools, since the fact that variable A has a high predictive power of variable B may be due entirely to the relation-

ship of both A and B to a third variable C, which is not considered in the analysis. Multiple regression analysis for example, has been widely abused in all branches of the social sciences, including recreation/tourism. The problem of actual versus apparent causality will not be discussed here, since it is assumed that the reader is familiar with basic statistical methodology and its associated problems.

The Outdoor Recreation Resources Review Commission, using the socio-economic variables listed in the left-hand column of Table 5-1, obtained relatively poor results in their efforts to predict participation in outdoor recreation and vacation travel behavior. The coefficients of correlation (R^2) obtained were low -- 0.30 for the overall results.⁽³⁾ In other words, only 30% of the variation in recreational participation and vacation travel patterns could be explained by the variables used.

This led the authors of ORRRC Study Report 20 to conclude that "factors other than socio-economic characteristics are major determinants of outdoor recreation activity. Such things as time available, the goals and interests which the individual seeks . . . , the leisure time preferences of other members and friends, physiological factors, recreational experience in childhood, interest in . . . competing activities . . . , or availability of facilities come to mind readily." ⁽⁴⁾

A technical refinement in the measurement of recreational activity might also have contributed to a more satisfactory conclusion regarding the influence of socio-economic characteristics. For example, instead of measuring simple participation in a recreational activity in terms of "often," "a few times" (one through 4 times) and "not at all," the exact number of occasions on which participation took place could have been measured, as could the intensity of participation.

A detailed breakdown of the relationships between the socio-economic variables and participation scores for outdoor recreation is to be found in Table 22 of ORRRC Study Report 20. These relationships are summarized in Table 5-2, on the following page.

TABLE 5-2

RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS
AND PARTICIPATION IN OUTDOOR RECREATION

<u>Factor</u>	<u>Influence on Participation</u>
Income	Positively related
Education of head	Positively related
Occupation of head	Positively related to status
Paid vacation	Positively related
Urbanization	Negatively related
Region	West and North Central more active
Age of head	Negatively related
Life cycle	Negatively related to child im- pedance and age
Race	Non-whites less active
Sex	Males more active

Source: Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults, ORRRC Study Report 20.

The National Recreation Survey, ORRRC Study Report 19, made a factor analysis of intercorrelations between types of outdoor recreation activities. This enabled the 15 principal outdoor activities to be aggregated into four homogeneous groups. These were: (a) passive pursuits, (b) water-related activities, (c) physically demanding activities, and (d) backwoods activities. Regression analysis performed on the socio-economic factors listed in the right-hand column of Table 5-1 for each sex, and for each of the four regions, yielded coefficients of correlation (R^2) of up to 0.44 in one case (Western male participation in physically demanding activities), but in most cases the explanatory value of the variables fell between 10 and 20 percent (i.e., R^2 of 0.10 to 0.20).

From this analysis, however, it is possible to make some general statements regarding the pattern of dependence of the four activity groups on the socio-economic variables. These are listed in Table 5-3.

TABLE 5-3

RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS AND
FOUR TYPES OF RECREATIONAL ACTIVITY

<u>Activity Group</u>	<u>Pattern of Dependence</u>
Passive pursuits	The major variable affecting participation appears to be education, the participation rate increases with higher levels of education. Surprisingly, poorer health also goes with less passive pursuit activity.
Water related activity	Non-whites have lower scores, while those who live away from urban centers have higher scores. Occupational status is positively related to water-oriented activities.
Physically demanding activities	Participation in physically demanding activities is dependent almost entirely on age, with younger persons naturally having higher participation scores.
Backwoods activities	Here age and income are most strongly related, but the relationship is somewhat less clear than for the other types of activities.

Source: The National Recreation Survey, ORRRC Study Report 19.

Other interesting information uncovered by the Survey Research Center's interviewers was the reasons persons give for not participating more often in outdoor recreation activities. These data are contained in Table 7 of ORRRC Study Report 20, Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults. They are repeated here as Table 5-4, on the following page.

TABLE 5-4

FACTORS PREVENTING DESIRED OUTDOOR ACTIVITY

<u>Reason Given</u>	<u>Percent of Total Respondents</u>
Lack of time	52
Financial cost, too expensive	17
Ill health, old age	11
Family ties	11
Lack of available facilities	9
Lack of car	5
Lack of equipment	4
Miscellaneous	9
Don't know or not ascertained	4
	<u>122%</u>

Source: Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults, ORRRC Study Report 20.

Note: Total adds to more than 100 per cent because respondents could mention more than one factor.

C. METHODS OF PROJECTING DEMAND FOR RECREATION/TOURISM FACILITIES

It will be recalled that the factors affecting demand for recreation/tourism were classified as either physical or socio-economic. The methods of projecting demand for recreation/tourism facilities can be divided into similar categories. A few methods are composite. These often involve a complex mix of assumptions concerning socio-economic trends, physical constraints and resulting preferences.

1. Projecting Demand from Knowledge of Physical Constraints

This type of projectional method involves the basic behavioral assumption that the use of a recreation/tourism facility is inversely related to either travel cost or travel time, or some combination of the two. Thus, the more distant (measured in time/distance) or more expensive facilities will be used less frequently, on a per capita basis, than competing facilities which are either closer to population centers or less expensive.

Using this behavioral assumption and tabulations of visitor days at a number of recreation facilities, Marion Clawson first developed a method for estimating recreational demand curves in 1959. (5) Jack L. Knetch has reviewed, explained and somewhat elaborated on the Clawson method in an article published in Land Economics in 1963. (6) Both of these papers are reviewed in Part II of this report.

The construction of a "Clawson demand curve," in outline, begins with a computation of the cost and time required to get to a given recreational facility from concentric tributary zones. These times and costs are then related to the proportion of the population in each of the tributary zones which actually visits the given facility. From this analysis a total monetary cost of visiting the recreational facility can be estimated for each tributary zone. A demand schedule is then constructed by multiplying these costs by the number of actual per capita visits. In effect this gives the quantity of recreational experience demanded at various "prices."

It is necessary next to make two assumptions in order to derive the demand curve for the given recreational facility from the demand curve for the total recreational experience. This first is that the users of the recreational facility would view an increase in entrance fees in the same way as an equal increase in the total travel cost of a visit. The second is that the visitors from one zone would behave similarly to people in other zones, if costs in time and money were equal.

Using these assumptions, the effect of an increase in user fees can be estimated by postulating increments in travel cost and reading off the per capita rate of visits which could be expected from each tributary zone. These new per capita rates for each zone, multiplied by the populations of the zones, would yield an estimate of the total number of visits. From similar calculations of the estimated number of visits at each level of increased fees, a new demand curve can be plotted. Clawson contends that this curve approximates the true demand curve for the recreation opportunity itself.

From such a demand curve, it would be possible to predict the number of visits to an existing facility which would result from either a reduction in travel cost or travel time (as by building better access roads) or a change in entrance fees. However, this method is not applicable to the problem of predicting demand for new recreational facilities with which the public has no familiarity. The result of one such demand analysis would not necessarily

be valid for another recreational facility, nor would it remain valid for any given facility for very long. In a few years, the basic factors underlying the analysis might change dramatically. For these reasons, Knetsch suggested the inclusion of additional variables to the basic travel-cost model. Such variables might be income, leisure, some measure of the availability of substitute areas, and congestion. A formula incorporating all of these variables would be more useful in predicting demand for new or altered recreational facilities than Clawson's model.

Marion Clawson has suggested that, by carefully selecting recreational facilities similar in socio-economic setting and physical attributes to a projected facility, the new facility could be evaluated. He did not claim that this method would produce concrete answers to recreational planning problems. Rather he believed that it would provide a reasonable series of alternatives which could then be evaluated on the basis of judgment and public policy.

A much more elaborate planning evaluation model, based on knowledge of physical constraints and behavioral assumptions regarding the propensity to visit any particular recreational facility, has been developed by Dr. J. B. Ellis of the Michigan Department of Conservation. (7) This model, called "RECSYS," is designed to deal individually with any recreation-travel activity in the state of Michigan on an area-by-area basis.

The RECSYS model has three components:

- (1) Destinations. Michigan was divided into 27 areas consisting of counties or groups of counties, for the purpose of measuring current and potential recreation use.
- (2) Origins. Similarly, 74 areas, including 8 areas outside of Michigan, were chosen as the points of origin of recreationers.
- (3) Interconnections. Built into the model are the constraints imposed by the system of 211 principal highway links which connect all of the origins with all of the destinations.

The model makes the common-sense assumptions that travel over any highway link is inversely related to the time and monetary expense required to traverse the link, and that the flow of visitors into any recreational facility (or

destination area) is positively related to the attractiveness of that facility. The data required for the model are:

- (1) A resource inventory of facilities and potential facilities for the particular activity in question, e.g., fishing.
- (2) Use statistics, by area, for the given recreational activity -- if possible arranged in a time series.
- (3) The origin of visitors to each recreational facility or destination area. Before the first computer run can be made, it is necessary to assign "attraction index" values to each of the recreation areas, a different attraction rating being required for each recreational activity in each area.

Dr. Ellis suggests two methods of assigning attraction indices:

- (1) Intuitive construction -- Subjectively rank the areas on a 5-point scale; these rankings will be adjusted later during model calibration.
- (2) Use of factor analysis, in an attempt to empirically rank the areas from inventory data.

At this stage in the use of the model, a series of trial runs must be made in an effort to calibrate the model to observed experience. In effect this "fits" the model to the real world. After this has been done, projections can be made with RECSYS by running the fully-calibrated model with certain changes in the base data and/or the attraction indices. The computer program print-out indicates "percentage shift" figures by which to evaluate the projected results of making such changes. Some examples of the types of changes that the model will evaluate in terms of demand for the facilities in each of the 72 destination areas in Michigan are:

- (1) Highway data projections -- highway construction, or lack of construction and the concomitant increase or decrease in traffic congestion.
- (2) Origin data projections -- the introduction of new origin-participation inputs, either hypothetically or on the basis of surveys, will change the results.
- (3) Attraction index projections -- RECSYS can be used to evaluate the demand patterns resulting from changes in area recreation facilities and capacity. Dr. Ellis

devotes a separate chapter to this important topic, giving examples of a hypothetical problem of planning for the projected utilization of 5 recreation areas, and of evaluating three construction plan solutions.

The use of a model such as RECSYS reveals unexpected results produced by the interdependencies of the state's recreation system, and in so doing overcomes one of the principal weaknesses of the Clawson demand-curve analysis. RECSYS does, however, have weaknesses of its own, and might be a relatively expensive model to adapt to another region. Once programmed, the model would be available for off-the-shelf use by many agencies for a variety of purposes. It would therefore probably lead to consistency and economy in plan evaluation. It is important to remember, however, that RECSYS merely calculates the results to be expected from recreation or tourism plans. Subjective criteria must still be chosen to evaluate the plan results shown by RECSYS; public policy is not made obsolete by the computer.

2. Projecting Demand from Knowledge of Socio-Economic Patterns

✓ The socio-economic methods of projecting recreation/tourism demand all involve the assumption that current relationships between recreational participation and socio-economic categories can be applied to the expected future socio-economic structure of society. Questionable as this assumption seems, it is probably a necessary one if long-term projections of demand are to be made.

The best single source for a discussion of the various socio-economic methods of demand projection is ORRRC Study Report 26, entitled, Prospective Demand for Outdoor Recreation. (8) This useful booklet provides examples of projections made with the various methods, but has little to say about the comparability of the results obtained.

The simplest socio-economic method of projecting demand for recreation/tourism facilities begins from the evidence that income, leisure time, and mobility are causally related to participation in recreation/tourism. An assumption is made that each of these three factors acts independently and with a unitary elasticity. The composite effect of the three acting together may then be calculated by multiplying each factor by its respective degree of change and cross-multiplying the three products.

The demand for recreation might, for example, be expressed as the product of leisure time (L), family income (Y), and inter-city travel mobility (M), thus:

$$L \times Y \times M = D$$

If the three factors are expected to rise by 10, 25, and 50 percent, respectively, the composite effect would be:

$$1.10 \times 1.25 \times 1.50 = 2.06$$

indicating an increase in recreation participation rates of 106 percent. This 106 percent increase could then be applied to per capita activity measures of all kinds of recreation/tourism activities.

It is obvious that the method just described involves many arbitrary assumptions. In particular, the assumption that each of the three socio-economic factors will have exactly the same degree of influence on participation.

To overcome this objection, while maintaining as simple a predictive formula as possible, one can use multiple regression analysis to identify the relevant socio-economic factors. Assuming causation, which is sometimes dangerous, one can then estimate their coefficients of causation. This usually requires initial collection of time series data for the dependent variable, National Park visits for example, and for the independent variables which is under investigation -- per capita disposable income for example. Any number of socio-economic variables can be tested for their ability to explain participation rates in recreation/tourism, but the field is usually narrowed first by means of theoretical hypotheses.

In ORRRC Study Report 26, per capita real disposable income, per capita intercity auto travel in miles, and weekly hours of leisure per employed person for the period 1929-1940 and 1947-1960 were found to explain 99 percent of the variation in per capita visits to National Parks during the same period. However, because of statistical problems arising from intercorrelation of the independent variables, it was not possible to accurately determine the independent effects of these variables.

Another method of projecting demand from socio-economic factors involves the application of multiple regression analysis to cross-section data rather than time series data. Such data, which were collected in the National Recreation Survey (ORRRC Study Report 19), indicate the association of socio-economic strata with participation rates in recreation generally, and with specific recreational activities. An example of the use of national cross-section data for projective purposes is to be found in ORRRC Study Report 26.

The National Recreation Survey revealed a high degree of correlation between certain socio-economic characteristics of the current population and the nation's participation rates in various outdoor activities. As is common with cross-section analysis, the current observed relationships were assumed to continue into the future. Through multiple regression analysis, the independent effects of each socio-economic factor on participation in each of the 16 outdoor recreation activities were then estimated.

Projected distributions of the population, arranged by the various socio-economic factors, for 1976 and the year 2000, were then used to reweight the 1960 participation rates. This yielded estimates of the effect of these changes on recreational participation. Again, because of intercorrelations between the socio-economic variables, such as income and levels of education, occupation, etc., the net effect of all the variables in combination is much more meaningful than the gross effect of each individual variable.

A projective technique which is quite new to the social sciences, but which we believe to have great potential, is that of principal components regression analysis. This method has a great advantage over factor analysis or stepwise regression in that it is not necessary to reduce the number of independent variables used when conditions of collinearity or near collinearity are encountered. Collinearity occurs when two or more independent variables are highly interdependent so that the net effect of each on the dependent variable is difficult or impossible to measure. If collinearity occurs, reliable prediction by multiple regression analysis is not possible. This kind of problem is likely to happen when national or local area data are being used to predict such things as use levels at a given recreational facility.

Principal components analysis is also attractive because it enables large numbers of independent variables to be analyzed mathematically, completely free from human subjectivity, and permits the rapid identification of those variables with most predictive power. This is especially valuable where different units of measurement are used among the independent variables, making direct comparison of their predictive or explanatory power impossible. Here principal components analysis will give a series of "beta coefficients" which are independent units of measurement. The beta coefficients indicate the relative predictive power or explanatory importance of the various independent variables under study.

Since it is typical for two or three independent variables

to explain better than 90% of the variation in the dependent variable (distance and income, for example, might explain 95% of the usage of a given recreational facility), principal components analysis can save much time and research effort when making recreation/tourism demand projections. In effect, it can be used as a screening process before proceeding with the construction of a multiple regression model. An interesting example of the use of principal components as an analytical tool in the social sciences is William F. Massy's article "Principal Components Regression in Exploratory Statistical Research," which appeared in the Journal of the American Statistical Association, Vol. 60, No. 309, pp. 234-256 (March, 1965).

A valuable example of the application of the socio-economic method of projecting recreation demand for a single metropolitan region is found in a recent publication of the California Department of Parks and Recreation on the Los Angeles metropolitan complex. (9) This analysis was based on 1960 per capita participation data for the western United States which were derived from the National Recreation Survey by the Stanford Research Institute. The coefficients of determination, or regression coefficients, of each factor were applied to the socio-economic characteristics of the metropolitan area population expected in 1970 and 1980. The resulting re-weighted per capita participation figures for each outdoor activity were then converted into total recreation occasions by multiplying them by the projected population of the region. These calculations, however, gave only the annual demand for various recreation facilities.

The Stanford Research Institute then studied the seasonal demand pattern for the various activities, and the daily distribution of demand within the peak season. By applying these relationships to projected 1970 and 1980 annual demand, they arrived at estimates of peak demand for these two years.

Such peak demand figures are relevant to the planning of adequate recreation facilities, although it is neither economical nor necessary to build to accommodate all the people who may want to use the facilities on the few summer holidays or the extreme peak weekends. In the Los Angeles study, it was determined that the optimum capacity need equal only one percent of the total summer demand for all activities except camping, and one and one-half percent of the total summer demand for camping. These capacity requirements were then compared with existing and planned facilities for each activity, and the deficiencies identified.

This illustrates an important issue related to demand prediction -- that of peak demand versus year-round demand. Un-

less a recreational system is prepared to carry huge amounts of surplus capacity for much of the year, peak demand can never be accommodated. Consequently, once peak demand has been predicted, it becomes a policy decision as to what percentage of this demand is supplied. Predictions of year-round demand can be very helpful in making this decision, consequently it is wise to predict both peak and year-round demand figures.

The problem of future undercapacity can be remedied in more ways than just building new capacity. European experiments have shown the effectiveness of altering seasonal vacation patterns as a means of lessening peak-time congestion of limited recreation facilities. (10) In the context of a community, state, or Economic Development Region, which hopes to increase its proportion of "outsider" tourist business through the provision of increased facilities, the staggering of local vacations and industrial shut-downs may be the cheapest way of meeting this goal. By staggering the shut-downs throughout the entire period of June through August, the pressure of local people on recreation facilities and roads can be distributed evenly. This would provide more opportunity for outsiders, who bring money into the region, to use the existing facilities and roads. An investigation of this possibility involves overlapping physical and socio-economic analyses.

The California projections incorporated the effects of physical constraints into an otherwise purely socio-economic analysis. This was done by apportioning the projected total demand for each type of recreational activity over concentric travel-time zones from the center of the Los Angeles metropolitan area.

There is no reason why this sort of combined analysis could not be used in reverse by a destination area, such as a rural recreation area, to locate the sources and volume of visitors to be expected in future periods. This information would help to pinpoint the type of recreation/tourism development which will prove most profitable and to indicate possible improvements in travel routes which will increase visitation levels. It could also be used to determine the markets in which recreation/tourism advertising will be most effective.

Because of the lack of adequate time series data on most aspects of recreation/tourism, cross-section analysis presently seems to offer the greatest predictive potential. However, as indicated above, the predictive value of cross-section analysis is not very impressive. The work of the ORRRC signals greater national interest in the economics of outdoor recreation, and will, presumably, lead to periodic Recreation

Surveys and to other systematic data collection efforts. It would seem wise, however, for local communities, counties, states, and Economic Development Regions, which have an interest in the development of recreation and tourism, to begin collecting their own time series data on the utilization of their recreation/tourism facilities. In this way, more fully informed planning decisions can be made in the future.

D. EVALUATING THE USEFULNESS OF VARIOUS METHODS OF PROJECTION

In practice, the method of demand projection actually chosen will depend upon (1) the type and extent of data available, (2) the time and money available to collect new data, and (3) the time and money available to conduct the actual analysis. The type of data required as a base for the projections varies widely in scope and cost from one method to another, thus limiting the choice of methods in many situations. Where possible, more than one method should be chosen as a cross-check on the results obtained.

Generally, the physical methods are more appropriate for short-term or "local" system projections. Socio-economic data change relatively slowly and are at best indifferent explainers of recreationer/tourist behavior. The socio-economic type of projections are thus best suited for "target date" projections 10, 20 or 30 years into the future. They are also well-suited for the Nation as a whole, for large census regions, and for other areas where adequate data are available. It is also important that these factors can themselves be predicted with some assurance. By interpolating between the present and such target date projections, intermediate patterns of demand may be estimated.

CHAPTER 5 - REFERENCES

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8. Outdoor Recreation Resources Review Commission Staff, Prospective Demand for Outdoor Recreation, ORRRC Study Report 26, Washington, D. C., 1962.
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10. In the Netherlands, for example, in the immediate post-1945 years almost all Dutch industrial closures took place in the first week of August. Today Dutch industries have been induced to stagger their closures over a six week period. In Belgium a publicity and propaganda campaign using radio, television, the press, movies and talks to clubs and associations the government has obtained an

CHAPTER 5 - REFERENCES, CONT'D.

increase in June holiday-bookings of between 13% and 16% in two years. More information on these programs will be found in the British Travel Research Journal, No. 2 and the OECD Tourism Report for 1962.

CHAPTER 6

METHODS OF PROMOTING AND ADVERTISING A TOURIST/RECREATION REGION

A. INTRODUCTION

Even when an Economic Development Region possesses considerable appeal to a tourist or recreationer it will not necessarily derive economic benefit from him. In an age when outdoor recreation is coming to be everyman's province and increasing amounts of disposable income are devoted to boating, fishing, trailer camping and so forth, there is considerable competition between one tourist/recreation region and the next. Promotion and advertising are essential if an area is to maximize the economic benefit to be derived from the tourist.

B. MOBILITY OF THE TOURIST AND THE NEED FOR REGIONAL PROMOTION

Today's tourist is remarkably mobile. Even the camping tourist is increasingly following his sport "on wheels." ⁽¹⁾ Rather than remaining in one location for the full length of his vacation, the tourist tends to spend a few days in one spot and then move on to the next. ORRRC Report 20 states that 88% of a nationally-representative sample of vacationers traveled 200 miles or more on their holidays in 1959 and 1960. Forty-four percent traveled 1,000 miles or more on their vacations; while some 24% traveled 2,000 miles or more. Eighty-two percent of these trips were made in the vacationer's own car. ⁽²⁾

The effective response to this mobility is obviously regional, rather than local promotion. A report on tourism and travel promotion potentials in Tidewater, Virginia, published in 1963, stated that the regional approach to travel promotion has the advantages of "combining a large enough variety of attractions so as to appeal in one or more ways to every member of almost any family or group; of increasing the total 'pull' of the area so as to bring tourists longer distances than they would travel to any one attraction or activity; and of sustaining a higher level of tourist dollar inflow throughout the year by emphasizing attractions which do not all reach their peak at the same time." ⁽³⁾

Many state and local agencies have responded by promoting regions rather than individual vacation towns or recreation areas. In 1959, for example, the travel directors of Colorado, Wyoming, Utah and Montana decided to cooperate in promoting their four-state region on the

grounds that the Rocky Mountain West was a unit area for the tourist. Pooling their advertising dollars they purchased a full-color, full-page advertisement in the New York Times in 1960, in addition to other joint efforts. The results of the joint campaign were satisfactory and the program budget was increased. During 1964, for instance, an eight-page supplement was prepared and inserted in the Los Angeles Times and Oakland Tribune -- both prime market areas. (4)

Another example is New England, where six states have formed a combined promotional agency, which is a division of the New England Council. (5) At a more local level a number of regional promotional agencies have been formed. The Monadnock Region Association, headquartered in Peterborough, New Hampshire, promotes an extensive mountain area in the south of that state. Likewise, the Mount Washington Valley Association promotes a 300-square-mile area in the east of New Hampshire. It was originally established to generate winter ski business. However, its success was such that it rapidly expanded into the summer tourist market.

These regional promotion agencies design, print and distribute brochures listing and describing the places which would interest a tourist. The Monadnock Region Association, for example, publishes a fold-out brochure listing accommodations (with prices and facilities available), camping areas, places to eat, establishments selling local crafts, antiques and gifts, country auctioneers and real estate dealers.

The All-Year Club of Southern California

One of the oldest and most successful regional promotion agencies is the All-Year Club. The Club was started in 1921, with the express purpose of developing a more even flow of tourists around the year. At this time the nine counties of Southern California which it served were primarily visited by tourists during the winter months.

The All-Year Club's advertising budget is one of the largest of any regional promotional agency in the United States -- some \$1,132,732 in 1964-65. This budget is largely used for advertising in magazines and newspapers with national circulation. Much of the advertising is directed at encouraging the reader to write in for further information. When he does so, the Club has a package of materials which it sends out. The package includes:

1. A large-scale map of Southern California which marks points of touristic interest and lists the tourist attractions in each county. It also shows suggested tours or "trails" through the area.
2. The Official Vacation Guide to Southern California. This pamphlet lists the most popular tourist attractions in the area, and gives pic-

tures of many of them. It also lists coming events which would interest a tourist.

3. Where to Stay in Southern California: A Guide to Hotels, Motels and Resorts. This pamphlet lists available accommodations, describes their rates, and outlines the facilities which they provide. This listing is tied into the large-scale Sightseeing Map of Southern California by means of symbols which locate each hotel, motel and resort.
4. Any additional information concerning a specific sphere of interest which the person writing in for information has indicated.

It is significant that when the All-Year Club was started in the 1920's the nine county area enjoyed visits from about a quarter of a million tourists per year, while in 1934 the number of tourists reached one million. In 1951 the area attracted three million tourists and by 1962 the total had risen to over five million tourists per annum.⁽⁶⁾ While some of this increase was undoubtedly due to rising disposable incomes, shorter work weeks and the development of such major attractions as Disneyland and Marineland of the Pacific, a portion of it can fairly be attributed to the All-Year Club's promotional efforts.

C. METHODS OF PROMOTION

1. The Trail

A regional promotion concept which seems to have been highly successful is that of the trail. In New England the Heritage Trail was devised by the membership of the New England Innkeepers Association in 1960. The Heritage Trail is a highway route about 2,000 miles in length. It links together the best scenic, historical, recreational and cultural attractions in the six state area. In addition to the main Heritage Trail, four minor trails have been devised by the Innkeepers Association to suit the more leisurely traveler. These cover the northern areas of Maine and New Hampshire, the Green and White Mountains of New Hampshire, and the offshore islands -- Block Island, Martha's Vineyard and Nantucket. The promotional office of the Heritage Trail distributes maps of the main Trail and the four minor trails, along with literature describing places of interest and available accommodations.

The promoters of the Heritage Trail have been outstandingly successful in obtaining free publicity -- never having paid for a single advertisement. They have obtained many newspaper stories describing the Trail, which suggested that the reader write to the Trail's promotion headquarters in Boston for further information. About 20,000 inquiries

were received from these sources. In addition the Trail promoters distribute about half a million maps and brochures annually through state promotion agencies, travel agencies and automobile clubs. Recently, they obtained a twenty-eight minute color movie showing points of interest along the Trail, which was made on their behalf by a large New England insurance company, free of charge. (7)

The "trail concept" has been used elsewhere in the U.S.A. with similar success. Examples are the Lincoln Trail in the Midwest and the Dixie Land Trail in the South. Many of these trails were set up by the American Petroleum Institute in New York City, which has considerable experience in this area.

2. Special Events

Special events must obviously be tailored to the geographical nature of an area and its attributes. Within these constraints, enormous scope is possible. A few examples will illustrate this point.

a. Woodsmen's Carnival - Pennsylvania

At Cherry Springs State Park, in northern Pennsylvania, a Woodsmen's Carnival has now been held annually since 1951. This two-day event, which is held early in August, includes log-rolling, tree-felling, horse-pulling contests and a general display of the lumberman's skills. In 1965 over 30,000 visitors attended. (8)

b. Covered Bridge Festivals - New Hampshire and Indiana

For three days in August, 1966 the first New England Covered Bridge Festival was held at Keene, New Hampshire. It was sponsored by the National Association for the preservation of Covered Bridges and the Monadnock Region Association. This Festival included a conducted tour of the six covered bridges in this area, a slide lecture on covered bridges, a parade of old-fashioned vehicles, a country auction, a church supper and a square dance. The Festival was modeled on the Covered Bridge Festival held annually in Parke County, Indiana, which attracted 50,000 visitors in 1965. (9)

c. Fishing Derby - Massachusetts

An annual Striped Bass and Bluefish Derby has been held on Martha's Vineyard in Massachusetts to provide a post-season attraction since 1945. It lasts from September 15 to October 15. This helps to prolong the tourist season which generally runs from around June 15 to September 15. Prizes are given for the heaviest fish caught each day and each week, in addition to an overall prize for the heaviest fish caught during the course of the Derby.

About 400 awards are made during the course of the Derby, and the total prize purse is worth around \$10,000. However, much of

this is in goods, rather than in cash. The goods are items of sport-fishing equipment, which are supplied free by their manufacturers in return for publicity. The manufacturers of fishing equipment also cooperate with the Martha's Vineyard Chamber of Commerce in sponsoring a printed program for the Derby, which includes charts of the best fishing grounds and pertinent information on them. In 1965, about 2,000 contestants participated in the Derby. It is estimated that each contestant, on average, brought along one other person. The total expenditures of these 4,000 people throughout the course of the Derby has been estimated at \$250,000 to \$300,000. The cost to the Martha's Vineyard Chamber of Commerce of promoting the Derby is between \$6,000 and \$8,000. (10)

d. Scottish Games and Dancing - North Carolina

On Grandfather Mountain, in North Carolina, two special events are held. One is the "Singing on the Mountain," in June, which has occurred annually since 1924; while the other is the two-day Annual Highland Games and Gathering of Scottish Clans, held in July. The Annual Games have been held since 1955.

At the "Singing on the Mountain," a number of local choral groups stage a one-day religious song festival. Most of the attendees at the Singing come from the mountain areas of North Carolina, South Carolina, Tennessee and Virginia. At the 1966 Singing some 25,000 persons attended. The event costs about \$2,000 to promote and run.

The Highland Games and Gathering is modeled on the famous Braemar Gathering in Scotland. It draws basically on the Scottish ancestry of many people who live in the Carolinas. However, participants come from all parts of the East Coast. The 1966 Gathering, for instance, drew pipe bands from Miami, Savannah, Baltimore and Detroit. The games include tossing the cabar and tossing the sheaf -- a twenty-five-pound sack of straw which is tossed with a pitchfork. Displays of Scottish dancing and other competitions also occurred. The 1966 Gathering was attended by about 10,000 people, and cost about \$5,000 to promote and run. It should be noted that both events are run by non-profit groups. (11)

e. A Scandinavian Festival - Oregon

When a new Interstate highway took much of the retail business from Junction City, Oregon in 1960, a local doctor looked for an idea to revive the area. Using the Danish, Swedish, Norwegian and Finnish backgrounds of the farmers who lived in this area, the concept of a Scandinavian Festival was developed. The first Festival was held in 1961 and drew 20,000 people. In 1965 some 40,000 persons attended and 45,000 are expected in 1966.

The Festival includes singing, Scandinavian music, folk dancing and free guided bus tours through the Willamette Valley where local farmers hold open house. Some farmers serve free refreshments.

Scandinavian fine arts are presented, while spinning, weaving and the cooking of local delicacies are demonstrated daily. The first day of the Festival is Swedish Day, followed by Norwegian Day, Finnish Day and Danish Day. Each day has its own special program with events related to the country honored. At the end of the Festival, local residents, costumed as Vikings, stage a torchlight parade which is followed by community dancing.

The Festival Association makes no charge for parking, registration or admission to the various programs. Prices are held down and advertising is carefully controlled. (12)

3. Historical Attractions

With increasingly higher levels of education becoming prevalent among the American people, there is a growing interest in historical attractions. These can be promoted in a number of ways. The Connecticut State Development Commission gives out an eight page booklet listing the 36 historical homes within that state which are open to the public. (13) Information is given on the location of the home, visiting hours and cost of admission. In addition, a brief bibliography is supplied for those who wish to make a deeper study of Colonial architecture.

An interesting example of a "manufactured" historical attraction is Old Sturbridge Village in Massachusetts. The "Village" is a collection of thirty-five Nineteenth Century houses, stores, mills and display rooms brought from many places in New England and reassembled on a 236 acre tract of land. Each of these buildings contains either a demonstration of some Nineteenth Century craft, such as pottery, tin-smithing, printing and baking, or a collection of antique furniture and fittings. As far as possible, these demonstrations are performed with restored period equipment. All Sturbridge staff are dressed in period costume.

The success of Sturbridge is measured by its attendance -- some 423,000 visitors in 1965. The visitor attendance rate for the first half of 1966 has increased 17% over the equivalent period of 1965. At present Old Sturbridge Village is planning a 10-year expansion program which will involve an outlay of \$11 million in capital and operating funds. (14)

While Sturbridge represents an outstanding example of what can be done with substantial investment, there are many less ambitious projects which have achieved comparable success. The Strawberry Banke project in Portsmouth, New Hampshire, is an example. This historic area was becoming sadly run down when a group of private individuals became interested in its restoration and formed Strawberry Banke, Inc. in 1957 to restore it. In 1965, the first two houses to be restored were opened to the public, and some 13,597 paid admissions were received during a four-month season. Now three restored houses are open to the public and a further six houses have been made safe. Crafts, such as weaving, spinning, rug hooking and pewtering are demonstrated in these houses. 1966 attendance had increased by about 200% over 1965 levels, as of early August. (15)

4. Cultural Attractions

The summer stock theater and the summer music, or dance, festival are becoming increasingly popular. These events will generally locate in areas which make them welcome and provide adequate facilities. At Tanglewood, in the Berkshire Hills of western Massachusetts, the Boston Symphony Orchestra has found a warm home since the Board of the Berkshire Symphonic Festival invited it to give three concerts in a temporary tent in 1936. While 15,000 people attended those three concerts in 1936, over a quarter of a million people came to the eight-week Festival in 1965. (16)

Tanglewood is one of many such attractions. The New York City Ballet Company and the Philadelphia Orchestra at Saratoga, in New York State, the pageant "Cross and Sword," in Saint Augustine, Florida, and the Marlboro Music Festival in Vermont are further examples.

5. The Use of Newspaper Stories, Travel Editor Tours and Special Supplements

Several states have successfully used newspaper stories to promote their tourist attractions. Articles are written by state personnel and given to major newspapers in the state's market area for use as fill-ins on their travel pages. The Hawaii Visitors Bureau has used this method for a number of years, in addition to giving editors assistance with special Hawaii cover issues.

Since competition for space on the travel pages of major newspapers is becoming increasingly fierce, several states have developed the practice of offering free tours of the state for travel editors of newspapers and magazines whose circulation is predominantly located in their market area. Montana, for example, has an annual Pacific Northwest Travel Editors' Tour, in which four travel editors from the state's market area are invited to go on a conducted tour of the state for two weeks, at the state's expense. (17) Idaho also stages tours of the state for invited travel editors.

The special supplement can be an important promotional tool. In 1965, the Connecticut Development Commission featured such a supplement in the New York Times and received 7,000 vacation inquiries as a result. (18) The Montana-Colorado-Utah-Wyoming joint promotional agency has used eight-page supplements in the Los Angeles Times and Oakland Tribune with similar success. (19) While this is an expensive method of promotion, especially if color is used, its results seem to justify the outlays involved.

D. METHODS OF PROMOTING THE "CAPTIVE" TOURIST

The previous section surveyed a number of ways in which to attract tourists to a given area. This section discusses methods of maxi-

mizing the length of a tourist's stay and expenditures in an area once he has arrived there.

1. Programming the Tourist's Visit

Once a tourist has arrived in his predetermined vacation area, he will want to look around and visit many of the tourist attractions in that area. His path from one attraction to the next can often be "programmed" to advantage. On Martha's Vineyard, in Massachusetts, a large number of tourists are day trippers. They arrive, without automobiles, at the ferry landings of Vineyard Haven or Oak Bluffs. From here the most popular way in which to see the island is by conducted bus tour. Some 1,000 to 1,500 people take the \$3 bus tour of the Island each day during the tourist season. (20)

The tour is so arranged as to include a 40-minute pause at Edgartown. During this pause the tourist will tend to purchase a souvenir, a refreshment and, perhaps, a meal. Since Edgartown contains a large number of stores catering to the tourist, this pause helps to ensure maximization of day tourist expenditures on the Island.

Similar approaches to programming the tourist's visit to an area can be achieved by means of the trail concept, or by the use of road markers indicating areas of interest. The use of a "welcome station" has a similar effect. Here the tourist is recommended to visit certain areas, and suggestions are given as to where he can best pursue some recreational interest, such as fishing.

Florida, for example, has nine welcome stations, which registered some 1,400,000 visitors during 1965. These were equipped with a full-time teletype network so that visitors' queries requiring more information than is available at the station are teletyped to the Florida Development Commission for an answer. 1965 saw the installation of a teletype "Fishing Hot Line" to give visitors immediate and current information on fresh and salt water fishing conditions in Florida. (21)

2. The Use of Accommodation Services

The availability of a good accommodation service will help to attract tourists to an area and ensure that they remain there rather than move on to another region in search of a place to stay. This is especially true of heavily-used vacation and recreation areas. The tourist is saved the frustration of hunting for accommodations at peak periods when most of the rooms in an area are full. In addition, he knows in advance how much the room will cost and can request rooms suited to his budget, an important consideration for many family groups. The fact that an establishment is listed by an accommodations service is usually a guarantee of acceptable standards of cleanliness and service. Finally, an accommodations service enables private residents in a vacation region to make supplementary income without having to advertise.

This last point is important, since the five or ten dollars per night, which the year-round resident of a vacation area can charge, is a very real supplement to family incomes. It is also likely that the secondary impact of income brought into an area in this way has a greater "multiplier" effect than income brought in via a chain motel, since the "leakage" of income from the area will be slower in the case of the private year-round resident.

Accommodations services vary greatly in their operation. Some are over-the-counter booths, strategically-located in heavily-traveled tourist/recreation areas. Often these are run very competently by local chambers of commerce. Several booths of this kind are operated in the Berkshire Hills of western Massachusetts, primarily to find rooms for the tourists coming to the Tanglewood music concerts.

Others are the write-in type of accommodations service, which make room reservations by mail. An example of this kind is the Berkshire Hills Conference, Inc., covering Berkshire County in western Massachusetts. The Berkshire Conference has 470 members, including motel operators, hotels, stores, and restaurants, who pay membership fees ranging from \$25 to \$150 annually, according to their size. The Berkshire Conference doubles as a promotion and advertising agency for the area. (22)

A most successful accommodations program is the Vermont "Farm Host" scheme. The Vermont Development Department maintains a comprehensive list of farmers who are prepared to take guests on a daily, weekly or monthly basis. The only requirements for listing are that the farms comply with a modern set of public health ordinances and that they secure a license from Vermont's State Department of Health. A brochure is published which describes each "Farm Host," and gives some flavor of the individual farms listed.

The "Farm Host" program could well be copied in other states. Where a farm does not meet requisite public health standards, yet wishes to participate in the program, a loan from the Economic Development Commission might be in order.

3. The Publication of Special Maps

The map which the average car tourist uses on his vacation will have been prepared and published by one of the national gasoline companies. While such maps are excellent in their own right, they tend to be small scale, ranging from one inch to 6 miles to one inch to 15 miles. For clarity the gasoline maps usually show only the major roads and more important minor roads. Consequently, relatively few tourists are tempted to venture onto the smaller by-roads.

Relatively few states or tourist regions seem to have recognized the importance of a good road map in maximizing the length of a tourist's stay in an area. Since the map is the one item of tourist literature which the tourist/recreationer is likely to put in his car and keep there, a great

deal of thought should be devoted to it.

Indeed there might well be a market for a large scale map, perhaps one inch to the mile, mounted on good quality paper or linen so as to give it an extended life, which is sold to the tourist. The price charged could be subsidized, but some charge would presumably be necessary to offset the considerable costs involved in the preparation of such a map. Since such a map would be designed with the tourist as its prime user, it could contain a great deal more information on places of interest, campgrounds, picnic areas, good fishing streams, etc., than the typical gasoline map.

An example of a good tourist map is that of South Dakota, published by the South Dakota Department of Highways. (23) Although the main state map is at a scale of fifteen miles to the inch, a careful use of colors has made it possible to show most of South Dakota's minor roads. In addition, the map shows Indian Reservations, State Parks, National Forests, Old Forts, Sites of Indian Battles and other points of interest.

A special map of the South Dakota lake system, marking boat launching places and points of access to the Missouri River, is printed on the reverse of the main map. This reverse side also includes a special map of the Black Hills region, at six inches to the mile. This marks such items as lookouts, caves, fish hatcheries, hotels and lodges. Also included on the map is information on summer theatres, Sioux Indian festivals, rodeos and other special events.

4. Assistance to Souvenir and Handicraft Vendors (24)

The vacationer's or tourist's propensity to spend on such non-essential items as guidebooks, decorations, ornaments, rugs, wall-hangings and the like, is far greater than when he is in his home environment. This propensity can be capitalized upon by offering well-designed and attractive goods to the tourist. However, the quality of goods offered for sale is often poor, while the design standards tend to be abysmally low.

The use of a creative commercial artist, who researches and designs such things as motifs, textile patterns, and molds, which draw as far as possible on the history and cultural traditions of the locality, can do much to improve sales of souvenirs to tourists. The commercial artist might be salaried by the Regional Development Commission and be available as a consultant to local entrepreneurs.

An extension on this theme is the stimulation of local crafts by providing instruction to local residents interested in making goods for sale to tourists. The instruction could be provided at either token rates or free of charge. The author knows of no place in the United States where this has been attempted, but would point to the Canadian Government's successful use of instructors on Prince Edward Island.

In the field of commercial advertising several methods have been developed to test the impact of a particular advertisement or promotional program. Some of these are quite scientific -- the use of the Cloze procedure, for example. ⁽²⁵⁾ Others use indices such as sales to test promotional effectiveness.

Macy's in New York has for many years used the approach of promoting some line with special advertising and then stopping the advertising campaign abruptly. Sales of that particular line with and without the benefit of the advertising campaign are compared and the difference between the two figures is taken as a measure of advertising effectiveness.

In contrast, in tourism and recreation there are very few effective methods by which to test the impact of advertising and promotion. None of the methods currently in use are particularly rigorous or scientific. However, the tools currently available represent a reasonable response to the nebulous field of tourism, and could only be improved upon at considerable expense.

It is obvious that many years of promotion and advertising may be necessary before any substantial increase is felt in the volume of tourists visiting an area. It is also clear that an interesting story in a major newspaper may cause a greater upsurge in the numbers of people visiting a region than all of the region's advertising that month.

The National Park campground on the Island of Saint John in the U. S. Virgin Islands experienced a 100% increase in attendance in twelve months between 1963 and 1964 with no formal advertising whatever. However, a story about the campground in the New York Sunday Times may have been largely responsible for this increase. ⁽²⁶⁾ Unfortunately the influence of advertising can never be properly separated from the impact of such factors as newspaper stories, rising personal incomes, greater leisure, and word-of-mouth accounts of vacation places.

1. The Coupon Method

The most commonly used method for testing advertising effectiveness is the coded coupon. This is a clip-out coupon which is attached to an advertisement in some magazine or newspaper. Usually the coupon is of the "Please mail to the X State Publicity Division for further information" type. This asks the reader to fill in his name and address. It often asks him to check certain boxes to indicate the type of information which he is interested in obtaining.

The coupon bears a code number which identifies it as coming from a certain issue of a certain magazine or newspaper. Consequently the staff of the "X" State Publicity Division are able to tabulate the total number of coupon enquiries resulting from a given advertisement

or advertising program. When this number is divided into the cost of running that advertisement, the resulting quotient is the "cost per enquiry."

The "cost per enquiry" is a most important figure to those engaged in the advertising and promotion of tourism since it is the basis on which they allocate their budget between alternative newspapers and magazines. In 1965, the cost per enquiry for advertisements placed in six New York City newspapers, and 12 newspapers in other East Coast and Canadian cities, by the Connecticut Development Commission, ranged from a high of \$2.04 to a low of \$0.57. The average cost per enquiry was slightly under one dollar. (27)

Since the people who clipped and sent the coupons for further information included their addresses, a state or region using the coupon method has an address listing which can be very useful for further testing of advertising effectiveness. This test involves sending questionnaires to a sample selected from those who originally wrote in for information. The usual questions included are:

- (1) Did you actually visit State "X"?
- (2) How many days did you spend there?
- (3) How much did you spend there? (A question to which any answer is suspect, as was explained in Chapter 3.)
- (4) How many people were in your party?

Provided that an adequate response is obtained, the number of people who visited a state or region in response to a certain advertising campaign in a specific newspaper or magazine can be derived. Estimates can also be made of how many vacationer-days resulted from a given advertising campaign and how much income an area derived from these vacationer-days.

In 1965, for example, the Connecticut Development Commission received 37,769 enquiries as a result of its advertising campaign. According to a questionnaire survey of those mailing in coupons, some 46,959 persons came to Connecticut after making enquiries, with an average of 2.7 persons in each party. In other words, 46.1% of those making enquiries actually visited Connecticut. (28) According to a survey made by the Greater Myrtle Beach Chamber of Commerce in 1961, some 68% of those who wrote to this South Carolina town for information actually visited it. (29)

Obviously, such methods cannot measure the full effectiveness of an advertising or promotional program since there will be many people who may be influenced by an advertisement, a color supplement, etc., who will not bother to clip the enclosed coupon and mail it off for further information. In this sense the methods outlined above understate the

effects of an advertising/promotion program. However, there will always be a certain percentage of coupon enquiries from schoolchildren and others who are collecting information for other than vacation purposes. This causes a compensatory overstatement of advertising effectiveness.

It is notable that the coupon method of testing advertising effectiveness is often forced upon a state promotion agency by the need to show tangible "proof" that the budget appropriated by the state legislature is bringing in the tourist dollar. Because of this need to justify their advertising budgets, some state promotion agencies may spend too much time and money on conducting effectiveness surveys.

In Idaho, for example, all state advertising was by means of clip-out coupon from 1955 until 1964, since the Idaho State Department of Commerce felt obliged to demonstrate the "worth" of their newly-formed promotional agency. However, in 1964, Idaho abandoned the coupons and changed to advertisements which simply included the statement "Write to the Department of Commerce and Development for information on Idaho." All work on coupon analysis has been stopped and, with a budget equivalent to that used for the coupon system, the number of enquiries received has increased by about 20%. (30) The Idaho case offers some indication that the coupon system is overworked and somewhat wasteful, but more case studies are needed in order to form a valid generalization on this topic.

2. Ratio of Promotional Dollars to Income Dollars Method

In the preceding section, the method of following up on coupon enquirers was described. Another commonly-used method of measuring the effectiveness of promotion and advertising is to calculate the ratio of dollars spent on promotion to dollars received from promotion-induced tourism.

The Greater Myrtle Beach Chamber of Commerce found this ratio to be \$1 to \$130 in its 1961 study. (31) The Bahamas Development Board estimates its ratio as being \$1 to \$120. (32) Connecticut estimates that its ratio averaged \$1 to \$110 between 1946 and 1965, although the actual ratio for 1965 was only \$1 to \$81. (33) In Florida, the ratio is estimated at \$1 to \$68 for the early 1960's. (34)

In effect these ratios measure the "immediate rate of return" on each promotional dollar. They monitor only the immediate result of the promotional program, since a person may be influenced to visit an area because of its promotion program and then return the following year because he enjoyed his first visit. If he spent a hundred dollars on his first trip and a further hundred on the second, then the dollar fifty of promotional expenditure which caused him to mail in a coupon request in the first place has generated not one hundred dollars, but two hundred. This is called the "Tourist promotion multiplier effect." It is a feature which enables a constant promotion, with a constant budget, to generate increasing results over the years.

To our knowledge only the Myrtle Beach study has attempted to measure its promotion to long-run income ratio. This came out at \$1 of advertising to \$340 in new income. (35)

The question of reliability of expenditure data gathered by means of a questionnaire mailed to a person well after the time that he took his vacation will not be examined here since it has already been discussed in the chapter on direct measurement of tourist spending. This author believes such data are merely "orders of magnitude" and cannot be treated as exact numbers. However, there is no literature presently available to compare actual spending to reported spending. Consequently the whole issue must remain an area of speculation pending further research.

3. The Wisconsin Analysis of Requests for Vacation-Recreation Information

An interesting questionnaire survey was made in Wisconsin in 1960 of people who had mailed in requests for information. (36) The survey is of especial importance since it was partially directed at comparing the impact of the Madison office of the Wisconsin Department of Conservation with that of its Chicago office. Since many states have more than one promotional office, this study could be used as a model for parallel studies which could be used to distribute a limited promotion budget equitably and to establish goals for the state's branch offices. For those states which do not have out-of-state promotion offices, this study should offer ideas on the value of such an office.

The Wisconsin study found that a substantial number of persons had requested information from their offices on previous occasions. This fact must be taken as an additional weakness of the coupon and ratio analysis methods of assessing promotional impact. It further found that about 66% of those writing to the Madison office did so in response to advertising. However, only 52% of those writing to the Chicago office did so because of advertising. (37)

This indicates that the presence of a state promotional office in a large city can achieve a great deal once it is established and its whereabouts well known. This finding was particularly significant in view of the fact that Chicago office respondents tended to actually visit Wisconsin to a much greater extent than did those writing to the Madison office. (38)

The Wisconsin survey investigated the consumer's reaction to the materials sent him in response to his coupon enquiry. It discovered that the area of greatest dissatisfaction was in information dealing with lodgings and accommodations. Common complaints were the lack of definite information on rates, whether pets were permitted and the type of facility available. There was also considerable dissatisfaction with the information supplied on camping in Wisconsin. This part of the survey was clearly of value to the Wisconsin Department of Conservation and could be

followed in other states as a periodic check upon the adequacy of the efforts made by its promotion department.

F. PROMOTION OF TOURISM AND RECREATION IN FLORIDA

Since the Tourist Division of the Florida Development Commission operates with a budget of \$1.6 million, it is hardly surprising that many excellent techniques of promotion, advertising and sophisticated budgetary allocation have been developed. Since these are too numerous and complex for discussion in this chapter, the reader is referred to the report on Dr. John O. Boynton's excellent paper to the 1965 Travel Research Association Conference in Part II of this study. ⁽³⁹⁾ The reader should also examine the Annual Reports of the Florida Development Commission which are available from the Commission's Tallahassee offices, Tallahassee, Florida 3230. The 1965 edition of this Report is reviewed in Part II of this study.

G. INFORMATION ON PROMOTIONAL AND ADVERTISING BUDGETS

It is helpful, in assessing what existing promotional agencies have done, to compare their operating budgets. This will also give a Federal Co-Chairman and his staff an idea of what can be achieved for a given budget. The best collection of information on promotion and advertising budgets, both domestic and foreign, is to be found in Holiday Magazine's State, Area and Community Advertising and Promotional Expenditures, published annually by the Curtis Publishing Company. It can be obtained from Denis Murray, Travel Manager, Holiday Magazine, 641 Lexington Avenue, New York, New York 10022.

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39. John O. Boynton, "Tourist Research in Florida," Proceedings of the 1965 Annual Travel Research Conference, pp. 53-60.

CHAPTER 7

MULTIPLE USE OF PUBLIC AND PRIVATE LANDS

A. MULTIPLE USE -- A DEFINITION

Only one definition of multiple use is to be found in a public statute. This is given in Section 4(a) of Public Law 86-517, which was approved on June 12, 1960. It relates to the National Forest Service and states: "'Multiple use' means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources . . . and harmonious and coordinated management of (these) . . . resources, . . . not necessarily (in) the combination of uses that will give the greatest dollar return or the greatest unit output.' In effect the Forest Service is advocating integrated uses of many kinds, the products of which have a sum total exceeding that possible from the products of any one use class.

A less formal definition, on similar lines, is provided in a brochure on the White Mountain National Forest, issued by the Forest Service. This states that "multiple use means that most of the area on the (White Mountain) National Forest yields several different products or services. Thus, timber harvesting, various uses of water, mining, hunting, fishing, and similar activities may take place at the same time, and each is so adjusted that it does not seriously interfere with the others."(1)

Mature timber is harvested from this 678,000 acre Forest at a rate of 18 to 24 million board feet per annum, with a value of between \$250,000 and \$300,000. Simultaneously the White Mountain Forest is managed in such a way as to safeguard a watershed area which supplies domestic and industrial water to consumers in every New England state. Sixteen campgrounds and over a thousand miles of foot and ski trails open much of the Forest for recreational use.

A rather different definition is often used by industrial land owners, such as the large timber companies. (2) This implies that "multiple use" is the accommodation of a maximum number of other compatible uses with the highest single use of the land. In most cases the highest single use of the land will be timber production. In relating multiple use to water bodies, a similar definition usually applies.

The Great Northern Paper Company, which owns two and a quarter million acres of timberlands in northern Maine, makes this statement concerning multiple use: "We . . . will . . . continue our policy of multiple use to assure our employees, and the public, ample opportunities for wilderness recreation insofar as this aim is compatible to our primary objective, namely, the continuous growing of timberland crops to supply the necessary raw materials for our mills and other wood using industries. (Emphasis added.) By the same token, the primary objective of our 700-mile road system is for the movement of equipment, supplies and labor to our operations, and transportation of woodland resources."(3)

It is worth noting that "multiple use is not a system of management, but a concept of management," a point made in ORRC Study Report 17. (4) This is significant, since it implies that the relative status of outdoor recreation in any multiple use project will be determined by the policies adopted by the owner of the project, rather than by the dictates of a land-management system.

B. THE ROLE OF RECREATION/TOURISM IN MULTIPLE USE AREAS

In most cases of multiple use in which recreation is involved, it will be found that one use predominates throughout the multiple use area. This may be flood control and watershed management, as with the case of a large reservoir and its surrounding timberlands. The Tennessee Valley Authority area is a case in point. The predominant use may be timber production, as with much of northern New England and the western states, or it may be farming, as in the Midwest. The predominant use is seldom, if ever, tourism and recreation. Indeed, in most cases, recreation is a relatively unimportant use of the land. This fact must be constantly borne in mind.

The large dams constructed by the U. S. Corps of Engineers are a case in point. The primary purpose of such dams is generally flood control, with the generation of hydro-electricity, navigation or irrigation, as their secondary purpose. The use of the surface waters, shorelines, and the surrounding areas for recreation is generally at the bottom of the list. This is partially because effective flood control and the profitable generation of hydro-electric power often call for vertical shifts in the surface level of the impounded water body. This, in turn, makes it difficult to use that water body for boating and other aquatic sports. The Sam Rayburn Dam, in Texas, has a potential surface level vertical range of 29 feet. (5) The low priority of recreation is also a question of location. A remote mountainous site for a new dam may effectively isolate its recreational potential from any mass market which it would have served, had its location been determined by tourism rather than the engineering aspects of hydro-electricity generation.

It should be remembered that the use of farmland for hunting and camping, and the use of farm ponds for fishing, can never be of more

than minor importance to the farmer unless his land is extremely marginal. Likewise, the extent to which tree farmers can be encouraged to provide campgrounds, picnic tables and boat-launching ramps among their timberlands will be limited, because timber generally gives a higher monetary return per acre than recreation.

C. SOME PROBLEMS OF MULTIPLE USE

Recreation, as a secondary use of land, presents many problems. In some cases the compatibility of recreation with other uses is questionable. In cases where the operation of a pulp mill or a flood-control dam necessitates frequent variation in the height of the impounded water body, boating is simply not safe. Where a campground will pollute a public water supply, it is inadmissible. Where the number of hunters who will come in search of farm-raised game is too great, damage to the farmer's crops may rule out hunting entirely.

During downdraws and other fluctuations, floating boat docks and walkways may have serious problems. In some of the TVA lakes, boats and docks were left stranded on the lake beds during the extreme downdraw of 1956. Storing water for flood control tends to deposit floating debris along the reservoir shores, which can make them unattractive for recreational purposes. These and other recreational problems created by fluctuation in the surface level of reservoirs are examined in ORRC Study Report 10, entitled Water for Recreation -- Values and Opportunities. Pages 21 through 32 of that report contain an excellent treatment of these problems.

In other cases the indirect costs of permitting recreation as a secondary use of land may be prohibitive. Included in this category would be the costs of cleaning up litter left by the recreationers, and the costs of repairing damage done by them. This includes a galaxy of items ranging from broken fences to forest fires inadvertently started by campers.

The fire hazards entailed in permitting recreational use of forest wilderness areas deserve emphasis. Every year the major paper companies lose several thousand acres of timberland through forest fires. They are expensive and time-consuming to put out, and may endanger the lives of the fire fighters. This problem is aggravated by the fact that the summer months, when the timberlands are under their most intensive recreational use, are often the months in which the danger of forest fires is greatest.

D. MULTIPLE USE CRITERIA (6)

Before any area is put into multiple use, careful studies must be made of the requirements of each resource which is to be included in that area. These requirements must be examined in the light of both spatial and temporal considerations. This examination will show up areas of compatibility and non-compatibility between the various resources.

A timber access road, for example, might also serve as an access road to a recreational area. However, these twin uses are often incompatible since the timber companies wish to move large, heavily-laden trucks in and out of the timber area, using the access roads. This is, therefore, an example of two resources which are spatially compatible, but not compatible in time.

In order to make them temporally compatible, it would be necessary to devise some arrangement, such as confining the logging trucks to night use of the road and forbidding recreationers' cars during the hours of 6:00 p.m. to 6:00 a.m. The Great Northern Paper Company, for example, occasionally closes its roads in the Fish Lake area of Maine to the public when its heavy trucking equipment is in use. An alternative approach, less favorable to the recreationer, would be to permit recreational use of the logging roads only on weekends and holidays.

A recreational area which has heavy summer use, such as a campground and boat-launching area, could be logged selectively during the winter, but not during the summer. A logging operation is not generally compatible with hunting. None the less, it might be possible to close down logging operations for a few weeks during the short hunting seasons in effect for certain types of wildlife and use it for hunting.

E. THE NEED TO RELATE MULTIPLE USE PLANNING TO REGIONAL PLANNING

In order to formulate an "optimum" land-use plan for a given local area it is not sufficient to merely take account of the capabilities of that local area. Rather, it is necessary that the capabilities of the area in question be evaluated in relation to those of a larger area where similar planning will apply, and of which the local area is a part. It would not be good planning, for instance, to devise a multiple-use plan for a small area in northern New Hampshire without considering the capabilities of and user demands on, the entire White Mountains region. Consequently, it will be seen that multiple use planning cannot be effectively separated from regional planning. (7)

F. SOME EXAMPLES OF MULTIPLE USE

These examples have been chosen as illustrations of the kinds of multiple use which a Regional Economic Development Commission might undertake to encourage recreation, rather than examples of the whole field of multiple use. Consequently the policies of such important bodies as the National Park Service and the National Forest Service are not discussed.

1. Farms and Hunting

Farmland can be an important source of game for hunting. While the varieties of game which can be raised are constrained by the nature of the farm habitat, farms have the important advantage of being closer to centers of population than the extensive wilderness and forest tracts necessary for large game. While many farmers are hostile to the hunter, and the posting of private land against hunting has increased rapidly in recent years, the sport could be of benefit to the farmer through fees charged for this use of his land.

The Florida Fish and Game Commission began a program of taking leases on private land for public hunting purposes in 1948. By 1956, the Commission had jurisdiction over nearly 4 million acres of private land. Under this program, the State agrees to provide fire protection, law enforcement and game habitat management, in addition to its lease payment to the farmer. The operating cost to the Commission is about 10 cents per annum. The hunter pays a flat \$5 for the privilege of hunting these lands. Revenues gained through hunter payments are used to purchase more land and leases. The Florida system appears to have been highly successful. (8)

Wisconsin has a similar program. By 1957 the State had 5 million acres under its control. This land was primarily located in the central and southern parts of the State where the hunter population is high and where posting of private land against hunting is particularly heavy. Non-hunting zones are set up around occupied farm buildings and parking regulations are strictly enforced. The State of Wisconsin also purchases submarginal land and critical marshes which are in danger of elimination through drainage. The cost of the Wisconsin program to the State is about 20 cents per acre per annum. (9)

2. Farms and Fishing

Under the 1959 Open Space Act of the New York State Legislature, New York State, and local governments within the state, can acquire an "interest" in private property in order to protect it from inappropriate development, without having to acquire the land outright. While the land remains in private ownership and on the tax rolls of the community, the Act protects the owners against excessive taxation.

It stipulates that land covered by recreational easements must be assessed on the basis of its current use value and not on its potential development value.

Under the provisions of the Open Space Act, the New York State Department of Conservation has set up a program to acquire fishing rights along trout streams which flow through farmland. It has also established a program to acquire public hunting rights on private land. Both have been highly successful. (10)

3. Reservoirs

Reservoirs present many possibilities for recreational development, in view of the rapidly-expanding demand for boating and fishing. According to the Outdoor Recreation Resources Review Commission, Federally constructed reservoirs in 1960 provided approximately 30% of the national acreage available for public freshwater fishing. The total sport-fish catch from man-made public reservoirs in 1960 was 137 million pounds.

Since the Norris Dam was constructed on the Clinch River in Tennessee, in 1935, the reservoirs of the Tennessee Valley Authority have been developed into a national sport fishing area second only to the Great Lakes among inland waters. The reservoirs have a combined shoreline in excess of 10,000 miles and had an annual visitation of over 36 million man-days in the early 1960's. On the nine tailrace waters alone, 724,000 anglers were counted in 1960. This produces an average of 290 fishermen per surface acre of water. (11)

An interesting discussion of the problems and possibilities involved in the multiple use of a Corps of Engineers flood control reservoir is to be found in Hare and Hare Associates' Recreational Potential of Sam Rayburn Reservoir, published in August 1965. This study is reviewed in Part II of this report, in the section relating to feasibility studies.

CHAPTER 7 --- REFERENCES

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3. Multiple Land Use, two-page folder distributed by the Great Northern Paper Company, Bangor, Maine.
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5. Hare and Hare, Recreational Potential of Sam Rayburn Reservoir, Kansas City, Missouri, 1965, p. 7.
6. This section is based on John F. Shanklin, Multiple Use of Land and Water Areas, pp. 9-11.
7. This section is also based on John F. Shanklin, Multiple Use of Land and Water Areas. A Canadian example of a multiple use plan fitted into a regional framework is the Glackenmeyer Report on Multiple Land-Use Planning to the Ontario Department of Lands and Forests.
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CHAPTER 8

BENEFIT-COST ANALYSIS AS APPLIED TO TOURISM AND RECREATION

A. INTRODUCTION

The Federal Co-Chairmen will make or suggest allocations among competing schemes of the limited public funds budgeted for tourism development. This chapter will therefore discuss a method of analysis by which the economic efficiency of such allocations can be measured and compared. This chapter is not concerned, however, with the problems of initial budget allocations to the development of recreation/tourism.

Once a budget constraint for a particular category of public expenditure has been set, a purely economic decision-making process becomes appropriate. Even where political factors intrude, economic analysis can provide a measure of the dollar cost of yielding to political or social policy motivations.

B. BENEFIT-COST ANALYSIS

Benefit-cost analysis is essentially an accounting technique by which all the factors which need to be considered in making certain economic choices can be assessed simultaneously from a long-run viewpoint. The format of analysis presented in this chapter is specifically tailored, from the literature which we have surveyed, to the evaluation of recreation/tourism projects.

One function of the Federal Co-Chairmen will be to suggest allocations of public and/or private funds among recreation or tourism development schemes, with a view to maximizing the economic benefits accruing to their Economic Development Region. (1) Generally that scheme will be most attractive which, for each new or transferred dollar's worth of investment and labor, provides the highest net monetary return to wage and profit receivers who live permanently in the region. Though of less immediate significance, consideration is also given in benefit-cost analysis to local government revenues and to the recreational enjoyment derived by residents of the region from development schemes. Before beginning a detailed enumeration of the relevant costs and benefits, however, several definitional matters should be clarified.

A recreation/tourism project is the aggregate of income-pro-

ducing activities that must be performed to provide new capacity to accommodate participants in recreation/tourism. ⁽²⁾ Included is the construction of the physical facilities of the project, as well as their maintenance and operation. Any additional economic activities stimulated by the project are also considered in the analysis as indirect effects.

A complication arises in the case of joint production, i.e., where there is a technical interdependence between the recreation/tourism aspect of a multiple-use development and the other aspects. A flood-control reservoir may unavoidably create a certain amount of recreation capacity, thus making separate analysis of the recreation aspect meaningless to the decision of whether or not to go ahead with the reservoir project. Given an inflexible technical interdependence, the only relevant considerations are the total costs and benefits for the overall project. ⁽³⁾ In such a case, it is only any additional allocation of resources identifiable with the recreation/tourism purpose that can properly be regarded as the recreation/tourism "project".

Gross benefits are values that can be created in the project. Costs are the values presently being created by those factors which will be employed in the project. Costs and benefits as used in this analysis are, therefore, both measures of output. Benefit-cost analysis could accurately be called "with and without" analysis, ⁽⁴⁾ because it compares the value of the factor outputs (e.g., value added, or incomes) which would be produced (or earned) with the project, to the values currently being produced without the project.

In evaluating a shift of resources into a recreation/tourism project, one must therefore reckon the cost as the value of the factor earnings in present uses which must be given up in order to enjoy the benefits of prospective earnings in the project use. In evaluating benefits and costs, it has been suggested that one should assume a constant price level over the lives of all the projects being considered, thus reflecting "real" prices. ⁽⁵⁾ However, adjustments must be made for expected changes in the relative prices of the specific benefit and cost items involved. ⁽⁶⁾

As we have seen, benefits are projected streams of income that will be earned "with" the project, while costs are projected streams of income that will be earned "without" the project. For analytical purposes, it becomes necessary to assign single present values to these future income streams, so that they may be easily compared. Present values can be calculated by discounting the stream of future yearly incomes back to the present, through the use of a simple formula. ⁽⁷⁾ The choice of a rate of time discount to use for this purpose is one of the most difficult and important economic problems in benefit-cost analysis. ⁽⁸⁾

The practice of federal agencies of using discount rates which consciously approximate the rate on long-term federal securities has

been strongly criticized by scholars, as has the adoption of the rate of return on private investments. (9) Most often suggested is the use of a "social time preference" rate. This is not to be confused with any particular market rate of interest, but rather reflects the willingness of society as a whole to redistribute income toward future time periods. Greater propensity to postpone consumption implies a lower social time preference rate, because such a rate will favor projects with long lives and small immediate returns. A standard rate may be prescribed for all recreation/tourism projects by the government, since it is essentially a political decision for which politically responsible officials are answerable. (10) Eckstein would let the government set a "relatively low interest rate for the design and evaluation of projects, but let projects be considered justified only if the benefit-cost ratio is well in excess of 1.0." (11)

Benefits minus costs equal net benefits. A net benefit is the increment to total value of product which will be made possible by transferring the factors which will be employed in the project from present use to the projected use. The benefit-cost ratio, however, is more relevant for decision-making because it is a measure of the efficiency of resource allocation. Benefit-cost criteria are much to be preferred over various internal rate of return or profitability methods of evaluation. Internal rates of return have two major inadequacies: (1) there are substantial direct benefits to any project in addition to those categorized as profits, and (2) invested capital is only one of the kinds of resources that must be allocated to any project. Benefit-cost analysis has the advantage of being able to include the project's impact on all the resources that must be allocated to it.

The categories of benefits and costs relevant to a recreation/tourism project will now be examined. We outline below the terminology used throughout this chapter in describing the relationship of particular benefit and cost items to the project itself. It should be noted that this terminology does not necessarily follow the often conflicting usages encountered in the literature surveyed.

A. Direct Project Benefits and Costs

1. Project operation.
2. Project construction.

B. Governmental Fiscal Adjustments

1. Taxes and nonoperating subsidies.
2. Consumers' price savings.

C. Indirect Effects of the Project

1. Induced effects on competing and complementary governmental projects and private businesses.

2. Secondary effects due to re-spending of direct and induced incomes.

C. MEASURING DIRECT PROJECT BENEFITS AND COSTS

Most of the literature dealing with the measurement of the benefits of recreation/tourism projects is concerned with the difficulties of placing dollar values on the so-called "intangible" of user-satisfaction. There is a dispute over whether satisfactions gained from recreation/tourism experiences are "intangible" in the sense of not being measurable in dollars. (12) In addition, because most publicly supplied outdoor recreation/tourism facilities are made available free of charge, it is difficult if not impossible to find a meaningful market value for recreation/tourism. However, since the primary aim of this analysis is to assess recreation/tourism projects in terms of their ability to generate income for permanent residents of Economic Development Regions, we can largely avoid these difficulties by concentrating on factor payments associated with the project. To the extent that recreation/tourism user-satisfaction is considered, it falls under the topic of "consumers' price savings."

1. Project Operation

a. Private Profits

If private enterprise will play a primary role in the operation of a recreation/tourism project, it is necessary to estimate the profits that will be earned during each year of the life of the project. Care should be taken that all relevant revenue and expense items are considered in the projections. After the series of annual projections of profits "with" (benefits) and "without" (costs) the project is determined, these income streams are discounted back to present value, using the formula given in reference 7.

b. Government Operating Surplus (or Deficit)

If any governmental unit is to participate in project operation in the role of entrepreneur (e.g., by collecting an entrance fee to a park or by renting boats), the annual net operating surpluses or deficits must be estimated in the same way that a private entrepreneur would calculate his profit. Though it is thought desirable to keep federal, state and local operating surplus (or deficit) accounts separate in the benefit-cost analysis, these amounts can be considered as reductions (or additions) to any nonoperating subsidies which

might be extended to the project by these units of government. Projected governmental operating cost and benefit streams are discounted to the present in the same way as all other factor incomes. Because governments can run long-term deficits, however, it is important to note that the "benefits" column may contain a large negative figure representing the operating deficits which the government expects to incur.

c. Interest

Earnings on loan capital are relatively easy to handle since loan interest is precise and certain. Costs, or present interest earnings foregone, can be accurately estimated. Projects which will utilize government loan capital may enjoy interest rates lower than going market rates. If this is the case, both costs and benefits should be entered at the reduced or subsidized rates. The implicit government subsidy is dealt with under "governmental fiscal adjustments." The annual interest payments, although calculated by using the applicable loan rate, must be discounted back to present value through use of the social time preference rate.

d. Rent

If the project is to use leased land carrying an annual rent, the rentals to be paid (benefits) should be discounted to present value. However, if land is to be purchased, the annual "rentals" must be imputed by reference to the price of the land. It is important that the measurement of these benefits remain unaffected by whether the land is purchased or rented. The cost of using the land for the project is the discounted present value of the annual rentals, actual or imputed, which the land commands in its present use.

e. Wages

The consideration of wages, for both managerial and nonmanagerial labor, calls for entering as benefits the discounted present value of the wages which it is expected will be paid to workers during the operating life of the project, by both private enterprise and government.

It is irrelevant whether the workers who will be used to operate the project are currently employed by private enterprise, by government, or at all. Costs are the discounted present values of the wages, expected to be earned in their present employments, by those who will be employed in project operation.

To the extent that labor will be drawn from the ranks of the presently unemployed, costs are lower by virtue of the fact that the "without" income streams of these workers will contain zeros for as long as it is expected that they would not find employment but for the project. However, any unemployment compensation that will cease once the worker secures employment is a cost. In effect, it is a factor payment received "without" the project. If the prospective workers are currently "underemployed," the amounts which they are now earning in small farming, odd jobs, etc., that will be given up to work in the project, should be counted in with labor costs.

2. Project Construction

Senate Document No. 97, 87th Congress, 2nd Session, 1962, indicates that project construction costs are to be treated as net area redevelopment benefits to the extent that otherwise unemployed area resources will be used. (13) This is the equivalent of saying that the resources necessary for project construction should be included in both the benefits and the costs side of the analysis, thereby reflecting any net increment in utilization.

The two categories to consider here are wages and profits. They are treated as though they are identical with the costs and benefits arising from project operation. Note, however, that although the income from project construction will be received in the first years of the project, the process of discounting to present value makes these wages and profits fully comparable with incomes which will be received in the more distant future.

The direct project benefits and costs arising directly from the construction and operation of a recreation/tourism project, can be summed into meaningful totals and the cost-benefit ratio computed. However, before project evaluation can be called complete, these totals must be adjusted to account for further governmental im-

pacts upon the project, and for economic activities which will become indirectly associated with the project. This leads to a consideration of government in its usual fiscal role.

D. GOVERNMENT FISCAL ADJUSTMENTS

In the section of project operation and construction, the government, be it federal, state or local, appeared in the role of entrepreneur, as operator of the recreation/tourism project. The government also collects taxes from workers and other entrepreneurs, and pays subsidies in various forms. The estimation of the impact upon costs of indirect taxes and subsidies is often difficult. However, it is necessary to forecast which enterprises, paying indirect taxes or receiving subsidies, factors will be withdrawn from in order to implement the project. Only in this way is it possible to gauge the fiscal impact of the contemplated shift of resources upon government.

The difference between indirect taxes such as excises on gasoline, and general sales taxes, received because of the project by each unit of government, and the subsidies (other than operating losses mentioned above) extended to the project by the same governmental units should be entered into the analysis. Similarly, direct or income taxes received from factors, out of incomes earned in the project, are benefits. However, direct taxes received from these factors in their old employment, are costs.

Because the direct taxes received from these factors must equal the direct taxes paid by them, and so balance out, they made no difference to total national income. However, they are significant regionally. Much of the state and federal taxes paid by residents of the Economic Development Region out of incomes earned in the project will not "stay" in the region, but will be spent by government as part of its general revenue. Separation of the government accounts by level of government and by region will pinpoint imbalances in tax revenues, subsidies, and operating expenses incurred and received by the various affected governmental units.

Consumer price savings. Any decrease in money prices charged the users of the recreation/tourism facilities as a result of the project should be entered as project benefits. Increases in the quality of recreation/tourism facilities for which no higher price is charged should also be considered as a reduction in price, and hence as an increase in project benefits. Here the difficulties of valuing user-satisfaction derived from recreation/tourism facilities is encountered.

Government-operated recreation facilities are usually supplied to the public at no cost, though this policy has recently come under intensive scrutiny. (14) For this reason, we do not know what public (or private) recreation facilities are "really worth" to consumers. In ef-

fect, we do not know how much they would pay if all recreational experiences had a price tag. This amount, less the amount they actually pay, is called "consumers' surplus."

Ideally, our benefit-cost analysis should take this amount into account, but this is not feasible for practical purposes. Consequently, it might be assumed that per capita consumer surplus enjoyed at each recreation/tourism project being analyzed is equal and constant, unless there is some change in price or change in quality which can readily be converted into a measure of price change. Any price savings isolated in this way, multiplied by the projected number of visitors who will enjoy the savings each year, discounted to the present, should be entered as a project benefit. (15) Price increases imposed through new or larger entrance fees, etc., are dealt with implicitly in the magnitudes of the previously-considered private profits and governmental operating surplus (or deficit).

E. INCORPORATING INDIRECT EFFECTS INTO THE CALCULUS

Up to this point we have been concerned with the primary economic effects of the project itself, and the government's fiscal role. Now we must consider the indirect effects which will occur when competing and complementary factors are reallocated in response to the recreation/tourism project. These indirect effects can be thought of in two categories, "induced" and "secondary." Though these effects, which are often highly conjectural, can be treated as both costs and benefits, they are usually figured as net benefits, either positive or negative. They are then entered on the benefits side of the calculation.

In some instances, indirect economic activity induced by the recreation/tourism project may be much more important to the Region than the revenues realized from the project itself. For this reason, an assessment of such indirect effects is an essential part of project evaluation. (16)

1. Induced Effects

The construction of a recreation/tourism project may possibly induce complementary enterprises which cater to the tourist/recreationer, such as roadside stalls, a restaurant, or a boat and motor dealer. Alternatively, through competition, it might partially or wholly capture the business of competing private enterprises. So far as they are foreseeable, at least part of the induced incomes which will be associated with the existence of the project should be counted as benefits of the project. Similarly, the replaced or diminished incomes caused by the project become a cost of implementing the project.

If we assume a full employment condition, there will be

no net national benefit from the readjustment of resource employment caused by a recreation/tourism project in one Region. (17) However, the Economic Development Regions are characterized by high levels of unemployment and/or underemployment. Also, from the point of view of a relatively depressed area, redistribution effects are very important. These two considerations combine to make the theoretical full-employment assumption irrelevant to the problems faced by the Federal Co-Chairmen. As will be shown in the hypothetical example which follows this chapter, however, benefit-cost analysis lends itself to an analysis of interregional shifts of resources and employment.

Senate Document No. 97, as interpreted in Determination of Area Redevelopment Benefits from Water Resource Projects, published by the Area Redevelopment Administration in March, 1964, (18) sets out a suggested formula for entering a measure of net induced benefits into the cost-benefit analysis. The first step is to estimate the net change in wage payments in project-induced industries and service businesses in the Development Region.

A minimum of 7% rising to a maximum of 20% of these wage payments are to be attributed to the project as "project-induced area redevelopment benefits." The figure selected from this range is said to depend on the economic adjustment capability of the areas with which the affected industry would compete. We would suggest, however, that 100% of all net changes in factor payments in induced activities be considered as benefits. This emphasizes the need for rigorous, standardized definitions of the project-induced activity which should be considered in analyzing the project.

If this was done the projected streams of profits, interest, rents and wages, discounted to the present, could be compared with corresponding measures of the induced effects expected from other recreation/tourism projects. There would be no distortional bias in including the returns to all factors in the analysis in this way, and an advantage may be gained to the extent that a bias in favor of projects which induce labor-intensive activity is avoided.

2. Secondary Effects

The Senate document previously referred to is also construed by the Area Redevelopment Administration as requiring that project-generated income in secondary industries, "such as trade and service industries," be included in the benefit-cost calculation. The phraseology

of the pamphlet, which links the "expansion of secondary activities" with "wage payments," leads us to interpret this as a reference to the "multiplier effect" familiar from elementary economics textbooks.

Some portion of the incomes flowing from the recreation/tourism project will be re-spent by their recipients in the Development Region, while some will be re-spent outside the Region. Because depressed regions are generally heavily dependent upon goods "imported" from other regions, it is probably the case that most of the incomes will quickly find their way outside of the Development Region. Successive rounds of re-spending will occur in the Region until the original receipts are "leaked" into savings or away into other regions of the United States.

The A.R.A. specifies that "up to about half of the directly-induced [wage payment] benefits" should be added into the benefits column as net project benefits. This implies a multiplier of 1.5. (19) It is not clear why the A.R.A. does not also suggest that secondary spending effects of direct project incomes be included. The A.R.A. also suggests that a flat 5% of the wage payments in directly induced activities be added as a net benefit due to utilization of idle resources other than labor. It is not clear how these percentages were decided upon, or under what circumstances they might be appropriately modified.

We do not think it necessary or wise to attempt to estimate the multiplier effect of recreation/tourism projects in the context of this chapter, for the following reasons. First, we assume that a recreation/tourism budget has already been allocated. This makes it unnecessary to compare the effects of a recreation/tourism project with, for instance, a sewage disposal plant. Therefore, it is not necessary to include a "make-weight" factor to convince decision-makers that recreation/tourism projects can have economic merits as great or greater than other possible projects.

Secondly, it is not anticipated that a recreation/tourism project will have any tendency to increase or decrease a region's ability to "hold" incomes within the region. This is another way of saying that the recreation/tourism project will not appreciably affect the Development Region's multiplier. Therefore, all projects with the same total of direct and induced net benefits will have the same multiplier effect, making it unnecessary to do the calculations.

Thirdly, it is difficult to make meaningful statements about a regional or even a national average multiplier without intensive empirical research and conceptual refinement. For these reasons, we feel that the Federal Co-Chairmen will be justified in leaving multiplier effects out of the benefit-cost calculations which they use.

3. Composite Adjusted Benefits and Costs

As will be demonstrated in the example that follows, the discounted flows in the benefits and the costs columns can each be summed, and the totals expressed as a quotient, benefits divided by costs.

The principal purpose of comparing the benefit-cost ratio of alternative projects is to enable the Federal Co-Chairmen to identify those recreation/tourism projects which promise the greatest overall economic gain to their "constitutents" in the Economic Development Region. It must be recognized in this context that even doing nothing, i.e., making a decision not to implement any project, is in itself a "project," which will have measurable effects upon the economy of the Region. That project, or combination of projects, which yields the highest benefit-cost ratio will represent the most efficient pattern of resource allocation that can be made with the funds budgeted for recreation/tourism.

CHAPTER 8 - APPENDIX

HYPOTHETICAL BENEFIT-COST ANALYSIS OF AN IMAGINARY RECREATION/TOURISM PROJECT

A. INTRODUCTION

The project which provides the highest net monetary return to wage and profit receivers, who live permanently in an Economic Development Region, for each dollar's worth of resources used, will normally be the one selected. It is therefore necessary to know the project benefit-cost ratio for the Region's residents as opposed to the benefit-cost ratio which will accrue to "outsiders."

The task of identifying a region's residents is complicated by the high mobility of persons in our economy. While it is probably true that the Economic Development Regions will be experiencing net out-migration, some persons will move into the Region, induced by the incomes associated with a recreation/tourism project, and other factors.

However, for purposes of our benefit-cost analysis, the identity of the persons comprising permanent residents of the Region must be the same for both the costs and benefits measurements. The Region must itself be defined as consisting of the permanent residents of an area and the resources whose earnings (if any) accrue to these permanent residents, regardless of the location of the resources.

A share of stock in A.T. & T. owned by a permanent resident is a part of the "Region." A piece of land located in the area and rented to a permanent area resident, but owned by an "outsider," is not a part of the Region. Since a person may move out of the Region, or the plot of land inside the Region may be sold to a permanent Region resident, it is advisable to define the affected Region as including only those persons and resources that reside in the Region at the onset of the project. All other persons should continue to be treated as "outsiders" no matter what patterns of migration they follow.

However, to the extent that one of the purposes of the recreation/tourism project is to influence in- or out-migration, those persons who are expected to move "in" or "out" should be treated from the onset of the project as if they are already "in" or "out." Care should be taken not to overestimate the effects of migration in these cases, because serious overestimation of project benefits might occur.

TABLE 8-1
BENEFIT-COST ANALYSIS
OF A HYPOTHETICAL RECREATION/TOURISM PROJECT

	DEVELOPMENT REGION				REST OF U.S.				TOTAL U.S.			
	B	C	B-C	B/C	B	C	B-C	B/C	B	C	B-C	B/C
DIRECT PROJECT BENEFITS & COSTS												
<u>Project Operation</u>												
1. Profits, Private	50	40	10	1.25	----	----	----	----	50	40	10	1.25
Government Operating Surplus (or deficit)												
2. Federal	----	----	----	----	----	----	----	----	----	----	----	----
3. State "X"	*	1	*	0.67	20	29	(9)	0.67	20	30	(10)	0.67
4. Local "Z"	(10)	0	(10)	----	----	----	----	----	(10)	0	(10)	----
5. Interest	20	20	0	1.00	40	30	10	1.33	60	50	10	1.20
6. Rent	100	50	50	2.00	----	----	----	----	100	50	50	2.00
7. Wages	1000	600	400	1.67	75	50	25	1.50	1075	650	425	1.65
<u>Project Construction</u>												
8. Profits	20	20	0	1.00	30	30	0	1.00	50	50	0	1.00
9. Wages	200	150	50	1.33	50	50	0	1.00	250	200	50	1.25
10. Direct Project Income	1380	881	499	1.57	215	189	26	1.14	1595	1070	525	1.49
GOV'T. FISCAL ADJUSTMENTS												
Difference Between Indirect Taxes (+) and subsidies (-).												
11. Federal	(150)	0	(150)	----	0	(150)	150	----	(150)	(150)	0	----
12. State "X"	1	*	1	----	29	17	12	----	30	17	13	----
13. Local "Z"	----	----	----	----	----	----	----	----	----	----	----	----
14. Direct Taxes Paid by Factors (-)	(294)	(201)	(93)	----	(60)	(50)	(10)	----	(354)	(251)	(103)	----
Direct Taxes Received by Gov'ts. (+)												
15. Federal	----	----	----	----	336	230	106	----	336	230	106	----
16. State "X"	*	*	*	----	18	11	7	----	18	11	7	----
17. Local "Z"	0	10	(10)	----	----	----	----	----	0	10	(10)	----
18. Consumers' Price Savings (+)	200	----	200	----	100	----	100	----	300	----	300	----
19. NET GOVERNMENTAL FISCAL ADJUSTMENTS	(243)	(191)	(52)	----	423	58	365	----	180	(133)	313	----
20. ADJUSTED DIRECT BENEFITS & COSTS OF PROJECT	1137	690	447	1.65	638	248	390	2.57	1775	938	837	1.89
INDIRECT EFFECTS OF PROJECT												
<u>Induced Effects</u>												
21. Profits	80	0	80	----	0	50	(50)	0	80	50	30	1.60
22. Interest	25	15	10	1.67	0	5	(5)	0	25	20	5	1.25
23. Rent	60	50	10	1.20	----	----	----	----	60	50	10	1.20
24. Wages	700	400	300	1.75	0	200	(200)	0	700	600	100	1.17
25. NET INDUCED EFFECTS	865	465	400	1.86	0	255	(255)	0	865	720	145	1.20
26. GRAND TOTAL	2002	1155	847	1.73	638	503	135	1.27	2640	1658	982	1.59
Composite Adjusted Benefits & Costs												

* Less than one.

Note: Figures are discounted monetary units, such as "thousands of constant dollars."

CHAPTER 8 - APPENDIX, CONT'D.

The top seven rows in Table 8-1 depict seven categories of factor payments associated with direct operation of the project. Project operation is expected to require local workers who are now earning 600 (expressed in discounted monetary units), but who will be paid 1000 in their project jobs. A few "outsiders" are also expected to work at the project, perhaps during the summers, and will earn 75. The land used for the project may be purchased, in which case the rent figures in row 6 represent the imputed rental value of the land in its old and in its project use. Although local entrepreneurs are expected to obtain profits from their part of the operation of the project (line 1), outsiders will lend capital funds, and will accordingly earn interest of 40 (line 5). Local capital will also be employed.

The federal government will not have a role in project operation, but state "X" and local government "Z" will provide necessary services, and the state expects to collect revenues from entrance fees or tolls. Note that local government "Z" will provide new services such as extra police and traffic control at the development as part of the operation. However, it either does not have a corresponding source of direct project revenues, or has costs of 10 in excess of its project revenues. State "X", however, expects to have an operating surplus of 20, as shown in line 3 of Table 8-1. This represents a reduction in the surplus of 30 which the state is presently earning with the same factors in other employments.

The project surplus has been apportioned between the Region and "rest of the U. S." according to population, assuming that 2% of state "X's" total population live permanently in the Development Region. This is done because the state does not "reside" within the Development Region, and because the project surplus (if any) will presumably be aggregated and spent as part of the general revenues of the state. To the extent that expenditures of general state revenues are normally distributed over population, it is appropriate to apportion operating surplus in this way.

Lines 8 and 9 of Table 8-1 represent the factor incomes from physical construction of the recreation/tourism project. It is expected that outside contractors will be used to a greater extent than local ones (line 8), but that local workers will be employed for most of the work (line 9).

Line 10, which is the total of lines 1 through 9, shows the total direct project income for the Region, the rest of the U. S., and the nation as a whole. The ratio of benefits to costs is 1.57 for the Region and 1.14 for the rest of the nation. To this point the project appears attractive to all factor owners scheduled to participate, and especially attractive to Region residents.

In the example table, three separate benefit-cost computations are provided for. The first, "region residents," plus the second, "rest of U. S." must equal the "total U. S." column for each factor of production or other item listed on the horizontal scale. This will become clear as hypothetical numbers are assigned to the table.

One more matter must be discussed before beginning the hypothetical example. It has been mentioned that the anticipated "with" (benefit) and "without" (cost) income streams for the life of the project are discounted to present value. In practice, a fifty-year upper limit is usually placed on the stream of anticipated benefits and costs.⁽²⁰⁾ While such a cutoff period may partially negate the ideological justification for governmental resource development that only government can afford to provide adequately for future generations, it has the advantage of preventing evaluations from being made too heavily dependent upon present technology and social preferences. The history of the past 50 years leads one to believe that technology and preference patterns 50 years hence may differ widely from even the most careful predictions.⁽²¹⁾

B. THE EXAMPLE

The benefits-costs calculus is illustrated quantitatively in Table 8-1. Through this strictly hypothetical example we have tried to show as many of the previously-noted patterns as possible without undue complexity.

The hypothetical project may be regarded as a multistate recreation/tourism development designed primarily for overnight visitors from outside the Economic Development Region. Though we shall include only state "X" and local government "Z" in the analysis, full evaluation of such a project would, of course, require inclusion of each different state and local government unit affected.

As previously explained, the project is evaluated from the point of view of three separable social units: the Development Region, the rest of the United States, and the total United States. Under this classification scheme, those parts of each affected state which are not physically within the project area are considered as within the "rest of the United States." The United States government is considered to be entirely outside of the project area. The project area itself might be conveniently defined by the county or town boundaries surrounding the project.

For each of these three social units there are four columns in Table 8-1. The first shows benefits, the second costs, the third contains benefits minus costs (net benefits), while the fourth shows the benefits-costs ratios.

Rows 11, 12 and 13 of Table 8-1 show the effects of indirect taxes and nonoperating subsidies. The Region factors which will be used in the project are presently receiving no federal subsidies, but it is expected that the federal government will transfer subsidy payments of 150 to the Region from the rest of the U. S. The net effect of this transfer on the total U. S. is, of course, zero (line 11).

It is estimated that state "X" will receive revenue from indirect taxes (gasoline taxes, general sales excises, etc.) on expenditure flows generated by the project which exceed by 30 any nonoperating subsidies which the state might provide to the project. This is not a net gain, however, for the state must give up 17 in indirect taxes due to the fact that some of the project expenditure, upon which the taxes are levied, is merely transferred from other parts of the state (line 12). State revenues in line 12 are apportioned by population in the same way as was the operating surplus in line 3. The subsidy contributed by the federal government can be thought of as going toward land acquisition costs and construction costs of the project.

Row 14 shows the direct taxes, such as those on income and property, which are paid on the factor income earned from the project operation and construction. For the sake of realism, taxes on the wages shown in lines 7 and 9 are figured at 20%, while taxes on profits and interest are figured at 50%. Note that no taxes will be paid on governmental operating surplus, and no taxes need be paid on the imputed rental value of land purchased for the project.

Direct taxes paid and received (rows 14 through 17) make no difference in the totals for the United States as a whole, but they are significant regionally. As indicated, federal income taxes are paid out of the Development Region, as are most of the state "X" direct taxes. However, local authority "Z's" property taxes drop by 10, reflecting the transfer of the land used for the project to public ownership. Any possible increases in the value of taxable property, in the local authority "Z's" jurisdiction, which result from the project, are too conjectural to be included in the analysis. (22)

Consumers' price savings, which was discussed earlier, is shown as estimated in row 18. Although the recreation/tourism project was designed to attract primarily "outsiders" who would stay overnight, local residents of the project Region are expected to make use of the recreation facilities on a day-trip basis. Furthermore, day-trippers will be able to enjoy the facilities most suited for day-trip use at a zero or minimal cost, resulting in a large consumers' surplus. Overnight visitors, who require more elaborate facilities, will be charged various fees by the project operators, thus reducing the "free" recreation benefit (consumers' surplus) they will enjoy to 100. These figures are estimates of

net increases in consumers' surplus over the project life, discounted to the present in the same way as all other quantities appearing in this table.

Line 20, which is the sum of lines 1 through 9 and lines 11 through 18, thus represents the total adjusted benefits and costs directly associated with the project. With the important exception of line 18, the data required to estimate the quantities in Table 8-1 will generally be available from reliable sources. Private entrepreneurs and government units anticipating participation in project operation and construction will have made market studies, profit projections, etc., which can be used to derive anticipated factor incomes. Governmental fiscal adjustments can be calculated using existing tax rates and planned subsidy payment schedules. The resulting flows can then be discounted with the social time preference rate and "plugged into" the table. The information in line 20, therefore, is relatively "hard." It should be carefully considered by the project evaluator, and compared with the direct effects of alternative projects.

Line 20 does not, however, give a complete picture of the project under consideration. In Table 8-1, for instance, the transfer of federal subsidy funds distorts the "rest of U. S." column somewhat. As will be seen, transfers of economic activity, indirectly associated with the project, from the rest of the United States to the Development Region, more than balances this distortion.

The indirect effects of the project can be segregated into "induced" and "secondary", as defined in the text. In the hypothetical case dealt with here, it is anticipated that the presence of the recreation/tourism project in the Development Region will induce certain types of economic activity such as motels, restaurants, auto service businesses and amusement facilities to relocate in the Region. Additionally, new businesses will be formed in the Region, and old businesses will expand, to help serve the recreation/tourism visitors who will be attracted to the Region. To the extent that presently unemployed resources are used in the Region, there will be a net contribution to national income.

Line 21 depicts both a shift of 50 in profits from the "outside" and the creation of new profits of 30 in the Region, resulting from the presence of the project. Interest income, shown in line 22, will behave in a similar way. The increase of 10 in the Region's rental income reflects the higher rates that will be charged for use of the Region's land for use in the induced businesses. It is also predicted in line 24 that competition for the economic gains induced by the project will result in the displacement of wages of 200 in the rest of the nation. For the nation as a whole, however, it appears that there will be a net increase in wages paid of 100.

It is recognized that the factor incomes induced by the project, as well as the direct incomes paid from project operation and construction, will in turn be spent by their recipients. As we explained previously, it is not necessary to include in this analysis the "multiplier effect" generated by successive rounds of re-spending of these incomes.

Line 25, the total of lines 21 through 24, represents the net relevant indirect (induced) effects of the recreation/tourism project on the Region, the rest of the United States, and the whole nation. Great care must be exercised in the prediction of these effects, because they are an important influence on the composite benefits-cost ratio of the project. Seemingly slight differences in the facilities planned at the project may, by affecting the quantity and type of visitors, result in markedly different levels of induced economic activity in the Region.

Finally, line 26 gives the grand total of composite adjusted benefits and costs of the project. If the foregoing quantities have been carefully estimated, line 26 becomes the best guide available for a decision based on the economic impact of the recreation/tourism project. In our hypothetical example, the benefit-cost ratio for the Development Region is 1.73, considerably higher than the 1.27 ratio which the rest of the nation will incur during the project's life. The whole nation's ratio is in effect a weighted average of the two.

When comparing the results of benefits-costs analyses of several proposed recreation/tourism projects, the Federal Co-Chairmen will generally pick that project which promises to yield the highest ratio for the constituents of their Region. In our hypothetical example, the project appears to be attractive for the rest of the United States as well, but this will not always be the case. To the extent that the "rest of the United States" represents an unidentifiable aggregate, the income redistribution away from the "rest" and into the Redevelopment Region will be of no concern to the decision-maker. The "rest" is a viable, adaptive society, able to absorb temporary minor losses. But if the "rest" is identifiable with a particular project in a particular region, and especially a competing Development Region, it may be advisable for the decision-maker to choose only projects which involve a benefit-cost ratio for the "rest" of greater than unity (1.0).

CHAPTER 8 - REFERENCES

1. See the Public Works and Economic Development Act of 1965, Public Law 89-136, Sections 101 and 504.
2. Site capacity is considered the appropriate measure of outdoor recreation "output" by Ivan M. Lee, "Economic Analysis Bearing on Outdoor Recreation Development," ORRRC Study Report No. 24, pp. 1-44, at pp. 6 and 7.
3. Otto Eckstein, Water Resource Development, Harvard University Press, Cambridge, 1958, pp. 262-3.
4. Ibid., pp. 51-52.
5. This suggestion was made by the Subcommittee on Benefits and Costs of the Federal Inter-Agency River Basin Committee in a statement issued August 28, 1951. This subcommittee authored the famous "Green Book," Proposed Practices for Economic Analysis of River Basin Projects (May 1950) which, for all its faults, has since become the "Bible" for benefit evaluation by federal agencies. A 1958 reprinting of the 1950 report was issued by the Inter-Agency Committee on Water Resources.
6. A. R. Prest and R. Turvey, "Cost-Benefit Analysis: A Survey," The Economic Journal, December, 1965, p. 691.

7.

$$\text{Present value} = \sum_{t=1}^n \frac{X_t}{(1+r)^t}$$

Where: t = the time element, e.g., year 1 when the project begins, year 2, year 3, etc., until year n when the project life ends.

X_t = the income in the particular year t .

r = the rate of time discount, or social time preference function.

8. Prest and Turvey, "Cost Benefit Analysis...", pp. 686-7 and p. 698, do not believe that a single (social) rate of discount can validly be applied to the private and public sectors.

CHAPTER 8 - REFERENCES, CONT'D.

9. Eckstein, Water Resource Development, pp. 94-96.
10. M. S. Feldstein, "The Social Time Preference Discount Rate in Cost-Benefit Analysis," The Economic Journal, June, 1964, pp. 360-79.
11. Eckstein, Water Resource Development, p. 101. Eckstein presents a schedule of discount rate and minimum benefit-cost ratio combinations which correspond to a rate of return of 6% on a water resource development project of average capital intensity. He estimates that the opportunity cost of capital raised by federal taxation is 6%.
12. R. P. Mack and S. Myers in their article on "Outdoor Recreation," in Measuring Benefits of Government Investments, the Brookings Institution, 1963, pp. 71-116, evidently believe that money prices could never adequately reflect the total benefits associated with outdoor recreation. Marion Clawson, in Methods of Measuring the Demand for and Value of Outdoor Recreation, Resources for the Future, Inc., 1959, p. 36, points out, however, that we assign monetary values to subjective experiences all the time, e.g., education and medicine, as well as symphony orchestras.
13. This document is interpreted in Determination of Area Redevelopment Benefits from Water Resource Projects, published by the Area Redevelopment Administration in March, 1964. We discuss it here because it seems to be both the strongest and the most recent attempt to ensure that indirect (secondary, induced, stemming from, etc.) benefits are included in project evaluation.
14. Public Law 88-578 of September 3, 1964, authorizes the President to establish and revise or provide for the establishment and revision of entrance fees to federally-owned recreation facilities. The Bureau of Outdoor Recreation has recently studied user reaction to such fees.
15. See book reviews in Part II of this report relating to benefit-cost analysis.
16. S. V. Ciriacy-Wantrup, in his chapter "Benefit-Cost Analysis and Public Resource Development," Economics and Public Policy in Water Resource Development, Iowa State University Press, 1964, pp. 9-21, concludes that all classes of indirect net benefits should be excluded from consideration in project selection. In seeming contradiction, however, he also says: "Identification of (indirect) net benefits in industry or regional accounts stimulates a better understanding of regional effects of public resource development." (p. 16). We have considered that the value of such identification of regional effects far outweighs the difficulties enumerated by Professor Ciriacy-Wantrup.

CHAPTER 8 - REFERENCES, CONT'D.

17. Lee, "Economic Analysis Bearing on Outdoor Recreation Development," ORRRC Study Report No. 24, p. 38.
18. See reference 5, supra.
19. If 1/2 of the wage payments are added to the original wage payments as further benefits, this means that the total re-spending benefit for the Region is 1.5 times the original wage payments, i.e., the "multiplier" is 1.5. The multiplier is expressed as a function of the society's marginal propensity to consume (MPC):

$$\text{multiplier} = \frac{1}{1 - \text{MPC}}$$

If, as the A.R.A. suggests, the Regional multiplier is 1.5, then simple calculation reveals that the effective marginal propensity to consume in the Development Region is 0.33. Only 33¢ of each dollar of project income is re-spent in the Region, the remaining 67¢ "leaking" into savings, or away into other parts of the nation.

20. Eckstein, Water Resource Development, pp. 83-90.
21. Recall from the text at references 5 and 6 that future money prices do not have to be projected for this 50-year period. Some guidance in the matters of future demands and future relative prices can be obtained from Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure, and Transportation, ORRRC Study Report No. 23, and Prospective Demand for Outdoor Recreation, ORRRC Study Report No. 26.
22. Prest and Turvey, "Cost Benefit Analysis...", p. 688.

CHAPTER 9

APPROACHES TO FEASIBILITY STUDIES

There is no one "best method" of making a feasibility study for a recreational facility; consequently this chapter will do no more than outline some general approaches. Much depends on the local and national data which are available, since predicting market size and growth usually requires reliable time series. These are relatively hard to find in the recreation/tourism field.

A feasibility study for any type of facility, whether it be a ski area, resort, or a boat marina, should have seven major components:

- (1) Reliable delineation of the market area to be served by the facility.
- (2) Accurate quantification of the market potential within the market area--this will include both the number of people who are likely to use the facility, and the degree to which they will probably use it. The latter could be measured in terms of frequency of use, dollar amount expended on each user occasion, or length of use. An example would be the average length of stay at a resort or ski area.
- (3) Reasonable projections of growth rates and significant trends within the market area. Since local data are often poor, and time series frequently non-existent, it may be necessary to use national data and adjust the results for local conditions, such as variations in participation rates.
- (4) Careful estimates of the cost of the facility. These should include construction costs, land acquisition costs, annual operating costs, and maintenance costs.
- (5) Careful estimates of both direct and indirect revenue.
- (6) A thorough cash-flow analysis using realistic interest and depreciation rates.
- (7) An evaluation of current and potential competition.

In general it will be found that a facility has an attractiveness which declines with distance. The time-distance costs act as a disincentive to visit or use that facility. Consequently the market area

is one in which potential drawing power is greatest near the center and least at the periphery. Some arbitrary measure is therefore necessary to delineate the outer limit of the market area. Examples of how this might be measured are: "less than fifty skiers per year" or "fewer than four hundred visitors per month."

Due to the disincentive effects of time-distance, it is often useful to create subdivisions of the market area. This might be done very crudely in terms of "primary market area" and "secondary market area," or in a more sophisticated manner such as "one hour's driving distance," "two hour's driving distance" and so forth. An interesting example of the latter approach is contained in Hare and Hare's report, Recreational Potential of Sam Rayburn Reservoir. (1)

In this study the market area for recreational facilities associated with a Corps of Engineers dam in Texas was divided into four concentric zones, each representing an additional hour's driving time. Each zone was then examined in terms of its present population and probable population in 1984. Next, the zones were examined in terms of family income distributions and employment trends. Much of this information was readily available at low cost in the detailed reports of the Census of Population.

The Hare and Hare report next turned to the National Recreation Survey, which is the Outdoor Recreation Resources Review Commission Study Report 19. The Survey gives participation rates in various types of water-oriented activities according to family incomes. These ORRRC participation rates were tied by Hare and Hare to the income data which they had obtained from the Census of Population. The results were multiplied by the present and future populations within each of its four time zones. The products were then adjusted according to the disincentive of distance.

The end product was a fairly reliable set of demand figures for various types of water-oriented activity at the Sam Rayburn Reservoir. The demand figures were expressed in terms of "occasion days," a concept which was examined in Chapter 1. This is a very useful measure to employ in recreational feasibility studies.

In a report to the Ventura Port Commissioners in California, Arthur D. Little, Inc., examined the feasibility of constructing a large new boat marina. (2) Delineation of the primary market area showed that it lay within two and a half hours driving time of Pierpont Bay, where the marina was to be located.

Having delineated this area, population and per capita income within it were examined, since both were found to be causally related to the number of boats in use. Growth rates were estimated by means of time series covering both registered and unregistered boats. An analysis

of trends in Californian boating showed that 60% of the boats in use in 1958 were trailer transported and thus did not require a slip or mooring space. Consequently, the number of berthing units required was relatively modest.

The Arthur D. Little study attempted to forecast the marina's revenues by studying a number of similar facilities which were already in operation. This analysis showed that there were three sources of gross revenue -- direct revenues from the rental of boat launching slips and parking facilities, indirect revenues from associated facilities such as restaurants, commercial wharfage, and a marine fueling station, and thirdly, tax revenues to the Ventura Port District.

At this point a listing of costs was made. These included land cost, the cost of financing the project initially, the cost of the physical facilities and engineering costs. Annual operating costs included expenses for administration, maintenance, replacement of worn and damaged equipment, insurance costs and payments of interest and amortization on the bonds issued to finance the project.

CHAPTER 9 -- REFERENCES

1. Hare and Hare Associates, Recreational Potential of Sam Rayburn Reservoir, report to the Area Redevelopment Administration, September, 1965. Available from Hare and Are Associates, 114 West Tenth Street, Kansas City, Missouri 64105 (\$10).

This report is also available under the title of Public and Private Recreational Potentials on Perimeter of Sam Rayburn Reservoir, Angelina, Jasper, Nacagdoches, Sabine and San Augustine Counties, Texas, from the Clearinghouse for Federal Scientific and Technical Information, U. S. Department of Commerce, Springfield, Virginia 22151 (\$4).

2. Arthur D. Little, Inc., Economic Study for a Small Craft Marina at Ventura, California, December 1958. Xerox copies available from either Arthur D. Little, Inc., 500 Sansome Street, San Francisco, California or Arthur D. Little, Inc., Acorn Park, Cambridge, Massachusetts 02140. A later study on another marina project at Ventura is also available.

Another interesting feasibility study is the Market Study for Tourist and Recreational Facilities on the Alabama-Coushatta Indian Reservation, Polk County, Texas. This is available from the Clearinghouse for Federal Scientific and Technical Information, U. S. Department of Commerce, Springfield, Virginia 22151 (\$2).

CHAPTER 10

SEASONAL HOMES

A. INTRODUCTION

Very little research has been undertaken on seasonal homes or "second homes" as they are sometimes known. We discovered only two studies which examined the nature of seasonal home ownership in depth, in addition to assessing the economic impact of seasonal homes on the areas in which they were located. One study was I. V. Fine and E. E. Werner's Private Cottages in Wisconsin, while the other was Chapter 11 of The Tourist and Recreation Industry in Vermont. (1)

At the present time a study is being made by Systems Analysis and Research Corporation, of seasonal home ownership in Maine, parts of New Hampshire and parts of Vermont. It is being based on 450 interviews with seasonal home owners--roughly a 1% sample of the universe involved. These interviews will probe the economic, social and psychological motives behind seasonal home ownership and should provide much valuable information on the nature of seasonal home ownership and its economic significance. This study is being made for the Bureau of Outdoor Recreation. It is expected that it will be published in December, 1966. (2)

A parallel study, of much greater magnitude, is being made on seasonal home ownership in the Connecticut River Valley, for the U. S. Corps of Engineers. This is being undertaken by Chiltern Research in Philadelphia. Its current publication date is set at December, 1968.

Both the Vermont and Wisconsin studies concluded that seasonal homes constituted a very important segment of the total vacation-recreation industry in their respective states. The authors of the Vermont study wrote

"that out-of-state summer residents have repeatedly returned to the state year in, year out, since World War II is highly significant. Here is a reliable contribution to the state's economy for which relatively little promotional effort has to be expended. Another remarkable aspect of this sector of the tourist and recreation industry has been its growth, as indicated by the decennial housing censuses. The 1960

count of seasonal units represented a net increase of 56 percent over those reported in 1950. Although not as high as the 89 percent increase in lodging place receipts in the roughly comparable 1948-59 period, . . . when the investment in housing which this increase represents is considered, it appears even more significant than the lodging place receipts growth." (3)

B. THE IMPORTANCE OF SEASONAL HOMES IN A LOCAL ECONOMY

The economic significance of seasonal homes can be expressed in terms of their absolute numbers, as a proportion of the total housing stock in a given area, or their estimated market value and consequently their contribution to the local tax rolls. The first measure is easiest to arrive at, since the U. S. Bureau of the Census contains county-by-county tabulations of seasonal housing in its decennial Census of Population and Housing.

The researcher should realize that housing held for seasonal workers, such as the employees of logging camps or fish canneries, is included in the Census category of "seasonal housing." Consequently some knowledge of the locale under examination may be necessary to prevent distorted results. At the 1960 Census, slight definitional changes were made and the "seasonal units" of the 1950 Census became "units for occasional use."

In 1950 there were 168,118 seasonal homes in the six states of New England. This represented 5.9% of the total New England housing stock. By 1960 the number of seasonal homes had risen to 249,861 or 7.1% of the total housing stock. (4) In the state of Massachusetts there were 87,019 seasonal homes in 1960, representing some 5.2% of the total housing stock. This figure showed a substantial growth in seasonal homes since 1950, when some 58,473 seasonal units existed. (5) In Vermont there were 16,517 seasonal homes, comprising 12.1% of all the state's housing units in 1960. (6)

Three additional examples will amplify the economic significance of the seasonal home. One is the State of Maine where, in 1959, some 39,546 seasonal cottages had an officially estimated market value of \$157,727,000 and represented 58.3% of the total value of all recreational property in that state. (7) The second is Wisconsin where 48,469 seasonal homes had an unofficially estimated value of \$501,593,000 in 1959. In that year the seasonal homes in Wisconsin paid \$5,785,061 in real estate tax revenues. (8)

The third, and perhaps most striking example of the importance of seasonal homes in a local economy, is the Island of Nantucket, off the Massachusetts Coast. Here the tax rolls are divided into property

held by year-round inhabitants and "off-islanders'" holdings. In 1960 about one-half of the total valuation of real property on this island was in seasonal homes, contributing one-half of the island's real estate taxes. (9)

The taxes paid by seasonal home owners to the communities in which they are located are very important. In many remote rural communities in northern New England the majority of the school system expenditures and much of the cost of snow clearing from public highways during the winter is met from taxes paid on seasonal homes. (10) Indeed, the Wisconsin study found that the chief dislike of seasonal home owners in that state was "the high real estate taxes which cottage owners must pay." (11)

The owners of the seasonal homes, their families and the people who visit them at their seasonal home, bring money into rural areas which was earned outside. The Wisconsin study found that nearly \$75 million were spent in Wisconsin in 1959 by seasonal home users. The major items of expenditure are listed below in Table 10-1, to illustrate those sectors of the local economy which benefit most from the seasonal home users.

TABLE 10-1

AVERAGE EXPENDITURES OF SEASONAL HOME OWNERS IN WISCONSIN IN 1959

Sample Size = 1,786 Seasonal Home Owners
Universe Sampled = 48,469 Seasonal Homes

<u>Item of Expenditure</u>	<u>Expenditures by Wisconsin Residents Owning Seasonal Homes</u>	<u>Expenditures by Out-of-State Residents Owning Seasonal Homes</u>
Maintenance and Improvements	\$345	\$484
Groceries and Meat	231	290
Boats and Trailers	185	114
Transportation	114	117
Real Estate Taxes	103	110
Amusements	67	81
Purchased Meals	54	87
Insurance	42	50
Clothing	37	78
All Other Expenditures	103	116
Total Expenditures	\$1,281	\$1,527

Source: Private Cottages in Wisconsin, p. 9.

Note: Respondents were specifically asked to include only expenditures made while at their seasonal home, or while traveling to and from it.

The Vermont study, working from a sample of 350 out-of-state seasonal home owners, found that the average owner paid around \$200 for major repairs or renovations to their property in 1960. (12) In the same year the average owner paid about \$130 in property taxes, \$152 for professional services (doctors, dentists, hospitals and lawyers), and a little over \$85 on utilities (telephone, electricity and gas). (13)

From the Wisconsin and Vermont studies it would seem that seasonal homes, like children's camps, provide a significant supplement to the annual income of local tradesmen such as the grocer, the butcher, and the general store. It is also evident that local restaurants benefit substantially from the seasonal home owners who eat out several times during their prolonged stays. (The average summer stay of the Vermont seasonal home owner was 74 days in 1960, while renters of seasonal homes stayed 21 days on average). (14) The seasonal home also provides supplementary income to the local carpenter who is engaged in the initial building of the home and its subsequent maintenance.

It would, however, be false to claim that the seasonal home industry, on its own, offers any major contribution to local employment. Rather we believe it should be regarded as a source of valuable supplements to the incomes of otherwise marginal business ventures. In this respect, the second home industry is akin to many other sectors of the recreation/tourism industry.

C. THE USE OF SECOND HOMES AROUND THE YEAR

The scanty evidence gathered in the Wisconsin report and from the personal knowledge of this author suggests that seasonal homes in northern New England and Wisconsin are used in almost every month of the year. The home owners often select locations such that their properties can be used for both summer pursuits such as fishing, canoeing, hiking and mountaineering, and fall and winter sports. The latter are primarily hunting and skiing. (15) The Wisconsin survey concluded that "cottages were used during every month of the year, although very few are used every single month as indicated by the fact that the sample of respondents consisted entirely of seasonal electric users" who had their power supply discontinued during some part of the year. (16)

The Wisconsin survey found that out-of-state owners of seasonal homes concentrated their use in the summer months, while Wisconsin residents owning seasonal homes made considerable winter use of their properties. This was probably due to their use of the homes for weekend hunting and recreational trips, which would be impossible for out-of-state owners, due to the length of the journey required. The findings of the Wisconsin study are presented in Table 10-2 on the following page.

TABLE 10-2

NUMBER OF SEASONAL HOMES OCCUPIED IN WISCONSIN IN 1959,
IN VARIOUS MONTHS OF THE YEAR

Sample Size = 1,786 Seasonal Homes

<u>Month</u>	<u>Numbers Occupied by Wisconsin Residents</u>	<u>Numbers Occupied by Out-of-State Residents</u>
January	130	34
February	119	33
March	181	62
April	494	189
May	886	391
June	1,103	497
July	1,156	568
August	1,141	560
September	1,046	481
October	721	312
November	407	98
December	158	49

Source: Private Cottages in Wisconsin, p. 3.

A particularly significant deduction which can be drawn from the above table is that seasonal homes, at least in Wisconsin, form the one sector of the recreation/tourist industry which is most evenly distributed around the year. Should further research demonstrate that this is true elsewhere, there is a good case for encouraging the growth of seasonal home development in areas which have to rely on recreation/tourism as a major source of income.

D. WHO ARE THE SEASONAL HOME OWNERS?

From a list of 48,469 seasonal home owners compiled by the Wisconsin investigators from utility company records, it was evident that the majority of these people had permanent residences in either Wisconsin, Illinois, or Minnesota. However, five other states had substantial representation and seasonal home owners came from 42 out of the 50 states. In addition, 3 Canadian provinces were represented. Table 10-3, on the following page, presents these findings in more detail.

TABLE 10-3

PERMANENT PLACE OF RESIDENCE OF OWNERS OR RENTERS OF
SEASONAL HOMES IN WISCONSIN IN 1959

<u>State</u>	<u>Number of Persons</u>
Wisconsin	32,805
Illinois	11,519
Minnesota	2,638
Michigan	337
Indiana	300
Iowa	173
Florida	166
Ohio	150
All others	381

Source: Private Cottages in Wisconsin, p. 2.

Note: The 1,786 useable returns showed that less than 2% of the seasonal home users were renters in 1959.

The findings of the Vermont study are presented in Table 10-4, below:

TABLE 10-4

PERMANENT PLACE OF RESIDENCE OF OWNERS OR RENTERS OF
SEASONAL HOMES IN VERMONT IN 1960-1961

<u>State</u>	<u>Number of Persons</u>
New York	120
Massachusetts	57
New Jersey	56
Connecticut	46
Pennsylvania	17
All others	67

Source: The Tourist and Recreation Industry in Vermont, p. 98.

The Wisconsin and Vermont figures indicate that many people are prepared to travel considerable distances, ranging from 100 to 500 miles, to reach

their seasonal home. This fact has important implications for the geographical spread of any advertising campaign which is directed at encouraging people to buy lots for seasonal home-building.

Examining the occupations of the 1,786 seasonal home users responding to their questionnaire, the Wisconsin researchers found that about half of them were professional and technical workers, non-farm managers or proprietors. Slightly less than one-quarter of the respondents were craftsmen, foremen and non-farm laborers. These occupations suggest that seasonal home ownership is concentrated among the upper-middle and upper income groups, a finding which was substantiated by the responses to questions on family income.

A surprising 13.3% of the 1,176 persons with permanent residences in Wisconsin, and 16.9% of the 610 persons with permanent residences out-of-state, were retired. This fact may well be linked to the large numbers of Wisconsin seasonal home owners who have permanent homes either in California or Florida. (17) This finding of the Wisconsin study is corroborated by the Vermont inquiry. It was discovered that 16.0% of the 350 seasonal home owners, and 10% of the 120 seasonal home renters responding to the Vermont questionnaire were retired. (18)

It may well be the case that people buy lots and build seasonal homes with a view to their eventual use in retirement. An interesting advertising campaign is currently being conducted by the Cape Cod Chamber of Commerce, based on this thesis. Promoting the theme of a "Wonderful Way of Life" available on the Cape, the advertisements and literature suggest buying a house or a lot there now, for seasonal use, and coming to live in it full time on retirement. Further research into the role of seasonal homes in long-range personal retirement plans is definitely worthwhile, especially for areas contemplating a promotional campaign similar to that of Cape Cod.

The annual family incomes of seasonal home users in Wisconsin are shown in Table 10-5, on the following page. A similar pattern was found in Vermont. The results of that survey are shown in Table 10-6, which is also to be found on the following page.

As one might expect, the owners of seasonal homes enjoy above-average family incomes. This, in turn, explains the substantial amounts which are spent on seasonal homes each year over and above the initial purchase price of the land and the cottage or cabin built on it. With rising disposal personal incomes, it seems likely that seasonal home ownership will continue to increase.

Finally, a look at the age distribution of seasonal home owners is in order. The Vermont Study is the only published report which has addressed itself to this question. Of its sample of 370 out-of-state families which used seasonal homes in Vermont in 1960-1961, only 11 heads of households were under the age of 35. In contrast, some 182 heads of households were aged between 35 and 55 years, while a further 176 heads of households were aged over 55. (19)

TABLE 10-5

ANNUAL FAMILY INCOME DISTRIBUTION OF
WISCONSIN SEASONAL HOME USERS - 1959

Sample Size = 1,176 Wisconsin Residents
 = 610 Out-of-State Residents

<u>Income</u>	<u>Wisconsin Residents</u>	<u>Out-of-State Residents</u>
Greater Than \$3,000	90.3%	88.8%
Greater Than \$5,000	76.7%	80.5%
Greater Than \$6,000	63.3%	71.0%
Greater Than \$10,000	29.4%	39.7%
Greater Than \$15,000	15.8%	20.2%
Non-Respondents to this Question	2.0%	5.3%

Source: Private Cottages in Wisconsin, p. 12 (The original table gives finer detail than that quoted here).

TABLE 10-6

ANNUAL FAMILY INCOME DISTRIBUTION OF
VERMONT SEASONAL HOME USERS - 1960-1961

Sample Size = 350 Seasonal Home Owners
 = 20 Seasonal Home Renters

<u>Income</u>	<u>Owners</u>	<u>Renters</u>
Greater Than \$5,000	89%	95%
Greater Than \$7,500	71%	65%
Greater Than \$10,000	51%	45%
Non-Respondents to this Question	5%	5%

Source: The Tourist and Recreation Industry in Vermont, p. 98.

Note: All 370 respondents had permanent residences out-of-state.

These data are insufficient to allow any valid generalizations to be made. However, they suggest that most young people either do not have the disposable income needed to buy or rent a seasonal home, or chose to allocate their disposable income elsewhere. The increasing incidence of seasonal home ownership with increasing age may well be linked with long-range retirement plans. Further research into these motivational issues appears to be worthwhile.

E. CONCLUSIONS AND RECOMMENDATIONS

The seasonal home as an economic development tool appears to have been largely neglected. Much can be done by public organizations such as the Regional Economic Development Commissions, states or townships, to encourage seasonal home development in their area. This is especially true if waterfront property is available for development, since the Vermont study found that "owners showed a marked preference for lakeshore properties"(20), while the Wisconsin study found that "more than 80 percent of all cottagers operated boats in Wisconsin during 1959."(21)

Some kind of regulation over the development of such homes is desirable, such as specification of minimum lot size, permissible development, building materials to be used, sanitary facilities required and so forth. While no study has yet been made on this topic, this author believes that there is widespread concern among seasonal home owners that later development might spoil the amenity of their property. (22) Indeed, there are many New England realtors who are selling land for seasonal homesites, using as a sales tool the fact that their lots are protected by restrictive covenants.

A burning issue in seasonal home ownership is that of property taxation. There are indications that the taxation of seasonal homes in some areas is burdensome, if not unfair. A prospective seasonal home owner will take the tax question into mind when purchasing a site or house. Consequently state and local governments would do well to see that the tax burden in areas where second homes are located is fairly distributed between year-round and seasonal homes. Otherwise, there is danger that the growth of this valuable economic resource may be driven elsewhere.

CHAPTER 10 -- REFERENCES

1. I.V. Fine and E.E. Werner, Private Cottages in Wisconsin, University of Wisconsin, School of Commerce, Bureau of Business Research and Service, Madison, Wisconsin, 1960,
and
John M. Thompson et al, The Tourist and Recreation Industry in Vermont, Vermont Development Department, Montpelier, Vermont, 1963.
2. This information is based on a telephone conversation with Paul Hendrick of Systems Analysis and Research Corporation, Cambridge, Massachusetts, on September 19, 1966. Mr. Hendrick is project director of the Maine, New Hampshire and Vermont seasonal homes study.
3. The Tourist and Recreation Industry in Vermont, pp. 97-98.
4. This information was taken from Supplement V, "Seasonal Housing," of Measurement of Tourism in Massachusetts, The Bresnick Company, Boston, Massachusetts, 1965, pp. 41-46. This report gives a very brief statistical outline of the geographical distribution of seasonal homes in Massachusetts in 1959 and 1960.
5. Measurement of Tourism in Massachusetts, p. 43.
6. The Tourist and Recreation Industry in Vermont, p. 95.
7. Division of Research and Planning staff, Recreation Property Inventory, Maine 1959, Maine Department of Economic Development, Augusta, Maine, 1960, p. 7. These figures were assessed value taken from the 1959 Valuation Book. The Recreation Property Inventory is a useful source for a regional analysis of seasonal home ownership. It classifies ownership according to eleven geographical regions, and according to whether they have shore frontage or not. The inventory includes Farms, Trailers and Undeveloped Real Estate as separate classes of Seasonal Residences. It was felt that these categories were outside those used in the Vermont and Wisconsin studies, consequently little mention of the Maine information is made in the body of the chapter. The Maine study is concerned only with the value of property and the numbers of properties. It does not give data on the home states of the owners, or their socio-economic background.
8. Private Cottages in Wisconsin, p. 10. These figures represented the owners' estimates.

CHAPTER 10 -- REFERENCES, CONT'D.

9. Measurement of Tourism in Massachusetts, p. 46.
10. For example in the Cranberry Islands off the coast of Maine.
11. Private Cottages in Wisconsin, p. 8.
12. The Tourist and Recreation Industry in Vermont, p. 96.
13. Ibid., p. 96.
14. Ibid., p. 96.
15. This statement is partially based on the author's personal knowledge of seasonal home ownership patterns in central Maine and the White Mountains of New Hampshire.
16. Private Cottages in Wisconsin, p. 3.
17. Private Cottages in Wisconsin, p. 11.
18. The Tourist and Recreation Industry in Vermont, p. 98.
19. Ibid., p. 98.
20. Ibid., p. 97.
21. Private Cottages in Wisconsin, p. 5.
22. Based on personal knowledge of seasonal home owners in central Maine and the White Mountains of New Hampshire.

CHAPTER 11

CHILDREN'S SUMMER CAMPS

A. INTRODUCTION

Unlike most other types of lodging places, the receipts of summer camps are entirely attributable to recreational expenditures. While the summer camp plays only a modest role in the overall recreation business of states such as Vermont and Wisconsin, their contribution to the local economies in terms of jobs and monetary receipts is significant.

The gross payroll of 35 summer camps in Vermont, one-third of the total number in that state, was about \$700,000 in 1961. Expenditures for food at these 35 camps were nearly \$300,000 and property taxes paid at the local level were roughly \$40,000 per annum.⁽¹⁾ An estimate of total receipts for all one hundred eleven summer camps found in Vermont in 1961 was \$4,800,000. In Wisconsin a total of 271 camps were operative in 1959, with estimated receipts of \$6,300,000. Some 62 of the 100 privately operated camps in Wisconsin paid \$61,621 in real estate taxes in 1959.⁽²⁾ In New Hampshire, to cite another example, summer camps provided employment for 6,593 persons in 1960.⁽³⁾

There are basically two types of summer camps: those operated by private individuals or organizations for profit and those operated by tax-exempt organizations, such as Church Camps, the Y.M.C.A., Scout Camps and the like. They differ in size and mode of operation. The tax-exempt camps tend to be larger, since their status permits them to own a more ample area for their activities. In Wisconsin, the privately operated camps ran at a substantially higher occupancy rate than the tax-exempt camps in 1959; 89.4% as compared to 74.0%--a factor which is clearly a product of the need of the profit-oriented camps to maximize utilization of their facilities.⁽⁴⁾ It was found in Wisconsin that "the tax-exempt camps are more nearly local in character and draw two-thirds of their patronage from within the state boundaries. This is probably to be expected, since such camps typically secure a substantial portion of their financial support from the local groups with which they are affiliated such as Scout Councils, Churches, and similar organizations."⁽⁵⁾

In Vermont very similar conclusions were reached from a study conducted by the Vermont Camping Association in 1961. (6) Here it was found that "the enrollment patterns of the institutional (i.e., tax-exempt) and private camps were just the opposite of one another. Only about one-seventh of the campers in the former were from out of state, while only about one-seventh in the private camps were Vermonters." (7)

While the Vermont survey did not inquire about the relative sizes of the tax-exempt and privately operated camps, it found that the latter had larger staffs and substantially greater payrolls. The tax-exempt camps employed on average only 27 persons and had an annual payroll of \$10, 707. In contrast, the private camps employed an average of 48 persons and had an annual payroll of \$24,058. (8) However, a significant finding from the viewpoint of the job-generating characteristics of these camps was that 75% of the employees of the private camps were out-of-state residents. In contrast, less than one-third of the employees of the tax-exempt camps were from out-of-state. (9)

B. THE GROWTH OF SUMMER CAMPING

We were only able to discover two studies which presented any kind of time-series on summer camps, one covering Vermont, the other New Hampshire. (10) Their findings are shown in Tables 11-1 and 11-2.

TABLE 11-1

GROWTH OF SUMMER CAMPS IN VERMONT, 1945 THROUGH 1961

	<u>1945</u>	<u>1956</u>	<u>1961</u>
Number of Camps	69	108	111
Total Capacity	6,289	9,173	9,500
Average Capacity	91	85	85
Number of Employees	Not available	Not available	1,527

Source: The Tourist and Recreation Industry in Vermont, p. 41.

While this sample is far too small to permit any valid general conclusions to be drawn from it, a substantial and continuing growth in the demand for summer camps is clearly indicated. More research will be necessary to determine whether summer camping is a phenomenon largely restricted to New England, or whether it is universally popular. If the latter is the case, then the summer camp has a place as an economic development tool among the other forms of outdoor recreation.

TABLE 11-2

GROWTH OF SUMMER CAMPS IN NEW HAMPSHIRE, 1946 THROUGH 1960

	<u>1946</u>	<u>1960</u>
Number of Camps	178	243
Total Capacity	14,632	24,092
Average Capacity	82	99
Number of Employees	3,959	6,593

Source: Vacation Travel Business in New Hampshire, A Survey and Analysis, p. 29.

C. CHARACTERISTICS OF SUMMER CAMPS IN WISCONSIN AND MAINE

In the previous section certain characteristics of summer camps in Vermont and New Hampshire were outlined. For comparative purposes, data on Wisconsin and Maine are given below.

TABLE 11-3

CHARACTERISTICS OF SUMMER CAMPS IN WISCONSIN IN 1959

Number of Camps	271
Total Capacity	24,723
Average Capacity	91

Source: Juvenile Camps in Wisconsin, p. 2 and p. 4.

TABLE 11-4

CHARACTERISTICS OF SUMMER CAMPS IN MAINE IN 1958

Number of Camps	221 (only 99 were surveyed)
Total Capacity (99 Camps)	11,545
Average Capacity " "	117
Number of Employees " "	4,195
Total Payroll " "	\$1,504,278
Town Taxes Paid " "	\$82,111
Expenditures for Food " "	\$985,771

Source: A Study of the Vacation Industry in Maine, p. 67 (11).

D. THE ECONOMIC SIGNIFICANCE OF SUMMER CAMPS

Summer camps, by their very nature, operate during a limited season of the year. Typically, this is between six and eight weeks in length. The employment generated by summer camps is therefore in no sense a stable economic base, and occurs at a time when employment in other tourist oriented activities, such as the hotel and motel industry, is at its peak.

None the less, the summer camps do provide a useful supplement to other forms of year-round employment. In particular they provide part-time work and additional income for local women who take on jobs, such as doing laundry, and cooking for the camps. They also generate a certain amount of revenue for local restaurants and motels in the form of visiting parents.

As a recent report on the recreation/tourist business in New Hampshire states: "during the summer of 1960 boys' and girls' camps represented over 34 per cent of total employment in all lodging places catering to tourists and vacationers. Their relative position in terms of New Hampshire residents was, however, much less important . . . only about 11 per cent of New Hampshire residents working in lodging places during the summer (were employed in the camps). The additional fact that well over 90 per cent of jobs in camps are of a short-lived seasonal duration was already indicated . . ."

"An important caveat must be added . . . Employment of New Hampshire residents is obviously only one--and not necessarily the most significant--measure of economic importance of camps to the state . . . one must take into account the monies spent by management, employees and vacationers . . . (and) the presence of boys' and girls' camps may be an important factor in stimulating business and thus adding to the employment in the other types of lodging establishments." (12)

The Wisconsin study states that ". . . parents . . . frequently find it necessary to spend at least one night in the state in order to accomplish their visits. In addition, there is their expenditures on food, lodging, recreation, etc., while making the trip . . . it can safely be surmised that (their economic impact) . . . is significant when one recognizes that more than 30,000 out-of-state children spent time in Wisconsin camps during the 1959 season." (13)

The study of summer camps in Maine, made by the Maine Department of Economic Development, showed that 99 of the 221 camps in that state had 16,132 out-of-state visitors in 1958. This study also "indicated that 243 families bought property, presumably for seasonal use, because of the propinquity of children's camps. These secondary effects may generate as much personal and public income for the Maine economy as do the direct transactions of the camps." (14)

CHAPTER 11 -- REFERENCES

1. John M. Thompson, Jr., et al., The Tourist and Recreation Industry in Vermont, Montpelier, Vermont, 1963, p. 43. Chapter 6 of the Vermont Report, entitled "Children's Summer Camps," pp. 41-47, is a valuable source on this topic.
2. I. V. Fine and E. E. Werner, Juvenile Camps in Wisconsin, University of Wisconsin, School of Commerce, Bureau of Business Research and Service, Madison, Wisconsin, 1960, p. 11. This 16-page report is a valuable source on the topic of summer camps.
3. Paul Hendrick, et al., Vacation Travel Business in New Hampshire, A Survey and Analysis, Division of Economic Development, Concord, New Hampshire, 1962, p. 29. Although less useful than the two sources cited above, this report contains much valuable data on summer camps in New Hampshire.
4. Fine and Werner, Juvenile Camps in Wisconsin, p. 4.
5. Ibid., p. 4.
6. Chapter 6 of The Tourist and Recreation Industry in Vermont is based on this study, and carries a full report on its findings.
7. The Tourist and Recreation Industry in Vermont, p. 42.
8. Ibid., p. 42.
9. Ibid., p. 42.
10. The Tourist and Recreation Industry in Vermont and Vacation Travel Business in New Hampshire.
11. Arnold H. Raphaelson, Tadeusz A. Siedlik, and John D. Coupe, A Study of the Vacation Industry in Maine. University of Maine, School of Business Administration, Orono, Maine, 1961. Pages 66 through 69 present a brief outline of summer camping in Maine. This is based heavily on a study by the Maine Department of Economic Development in 1958.
12. Vacation Travel Business in New Hampshire, p. 115.
13. Juvenile Camps in Wisconsin, p. 7.
14. A Study of the Vacation Industry in Maine, p. 69.

CHAPTER 12

BOATING IN THE UNITED STATES

A. INTRODUCTION

"Technological development of the lightweight, high horsepower, gasoline motor coupled with (new) techniques of boat manufacture, have made possible mass distribution at popular prices. These factors have combined to make boating popular among 22 percent of the population (aged 12 or over) during the summer (of 1960)" wrote the authors of the National Recreation Survey. "When small motor-powered boats became available to large numbers, the motivation to possess a boat already was present. This motivation arose also from the desire to freely explore lakes and rivers, and a desire for speed, both in the boat and on water skiis. Outboard motors reduce the effort of fishing, and make it easier to go farther and seek out better fishing spots. . . In addition, one achieves status through possessing a boat which not very long ago only a rich man might own." (1)

These and other motives have led to a phenomenal increase in the popularity of boating since 1945. The sales of outboard motors form an index of this growing popularity. In the early 1920's less than 20,000 were sold per annum. In contrast, in 1950 some 367,000 were sold, while in 1965, 393,000 outboard motor sales were made. (2) The number of boats sold annually has broadly followed the number of motors sold. In 1950, 131,000 outboard motor-powered boats were sold in the United States. In 1960, the number was 294,000, while in 1965, the annual sales had risen to an estimated 250,000. (3)

The most rapidly growing item of boating sales, however, has been the boat trailer. From sales of about 4,000 per annum in 1947, boat trailer sales rose to 151,000 in 1956 -- a fortyfold increase. As Marion Clawson has written: "The great increase in numbers of trailers obviously tends to spread boating into more waters and to increase the substitutability between various bodies of water." (4)

Table 12-1 presents a time-series of the estimated numbers of recreational boats in use in the United States over the past sixty years. This table documents the burgeoning growth of this sport in the past fifteen years.

TABLE 12-1

ESTIMATED NUMBERS OF RECREATIONAL BOATS
IN USE IN THE UNITED STATES
1904 - 1965

<u>Year</u>	<u>Numbers of Boats</u>
1904	15,000
1913	400,000
1930	1,500,000
1947	2,440,000
1951	3,710,000
1961	7,175,000
1963	7,678,000
1965	7,865,000

Source: Boating 1965, National Association of Engine and Boat Manufacturers and the Boating Industry Association, p. 8. ⁽⁵⁾

B. THE SCALE OF BOATING AS A RECREATIONAL ACTIVITY IN 1965

A statistical report entitled Boating 1965 presents a valuable picture of the nationwide scale of boating. This report was prepared jointly by the National Association of Engine and Boat Manufacturers and the Marketing Department of the Boating Industry Association. ⁽⁶⁾ It found that some 3,810,695 boats were actually registered with state or U. S. Coast Guard authorities under the provisions of the Federal Boating Act of 1958, as of June 30, 1965.

39,325,000 persons were estimated to have participated in recreational boating during 1965. These people spent an estimated \$2,683 million on retail purchases of boats and related equipment during 1965. This sum includes the purchase of new and used boats, both inboard and outboard motors, safety equipment, fuel, insurance, docking charges, maintenance costs, launching fees, storage charges, repair costs and club memberships. ⁽⁷⁾

The Boating Industry Association estimated that there were about 7,865,000 recreational boats in existence on all waters in the United States. This figure is about double that for boats actually registered due to the operation of the Federal Boating Act. This Act gave

states the option to register boats in their waters. If the option was exercised, boats with motors of greater than ten horsepower had to be registered, but registration of motor boats with less than ten horsepower was optional. Of the 46 states with Coast Guard approved registration systems on July 1, 1965, four have laws that cover registration of virtually all boats, twenty require registration of all motorboats, regardless of horsepower and twelve number all motorboats over ten horsepower. (8)

The types of boats comprising the 7,865,000 estimated to be in existence in 1965 are shown in Table 12-2.

TABLE 12-2

TYPES OF RECREATIONAL BOAT IN USE IN 1965, WITH NUMBERS INVOLVED

<u>Type</u>	<u>Numbers</u>
Inboard Motor Boats (includes auxiliary-powered sailboats)	570,000
Outboard Motor Boats	4,530,000
Sailboats (Without inboard power)	535,000
Rowboats, Canoes, Dinghies, and Miscellaneous Craft	2,230,000
Total	7,865,000

Source: Boating 1965, p. 3.

Note: All figures are estimates.

It is notable that there were an estimated 5,400 marinas, boat yards and yacht clubs with waterfront stations in the United States in 1965. Boating 1965 estimated that 4,100 of these installations were either marinas or boat yards, while 1,300 were yacht clubs. (9)

C. WHO ARE THE BOAT OWNERS?

In July and August of 1965, the consumer magazine Rudder made a survey of its readers. The results of this survey were published in a pamphlet entitled: The Active Yachtsman, Today's Rudder Reader. (10) As with any other survey of consumer magazine readers, there is likely to

be bias in the sample, since to subscribe to the magazine originally, a person must have had above average interest in this form of outdoor recreation.

Bearing this reservation in mind, it is interesting that this survey, using a sample size of 1,650 respondents to a questionnaire which was both mailed to subscribers and included in the August 1965 issue of Rudder, found that 83% of its readership own at least one boat. Half of those who were not currently owners had owned boats previously. Twenty-three percent of the magazine's readership owned two boats, while 7% owned three or more boats.

Four-fifths of the magazine's readership were men, a finding which parallels that of the National Recreation Survey to the effect that "males participate in boating almost twice more than females." (11) The median age of Rudder's readership was 42.3 years. The age distribution is detailed in Table 12-3.

TABLE 12-3

AGE DISTRIBUTION OF RUDDER MAGAZINE's READERSHIP, 1965

Sample Size = 1,650 Readers

<u>Age</u>	<u>Percent of Total</u>
10 - 17 years	2.8%
18 - 24 years	6.2%
25 - 34 years	20.0%
35 - 44 years	28.9%
45 - 54 years	26.4%
55 and over	15.7%
Total	100.0%

Source: The Active Yachtsman, Today's Rudder Reader

The finding that ownership of boats and participation in boating increases with age until the late forties, is very probably associated with disposable personal income. In effect, the man in his twenties and early thirties has not yet reached the point in his income development where he can afford to participate heavily in boat-ownership and boating. This inference is corroborated by the National Recreation Survey which stated that "the male 25 to 44 age group participates (in boating) slightly

more heavily than the 18 to 24 year age group, and it may logically be supposed that this age difference is associated with income capability to own a boat." (12)

These hypotheses are supported by the finding that the average income of Rudder's readership was \$16,527 per annum. (13) The detailed distribution of income is shown in Table 12-4.

TABLE 12-4

INCOME DISTRIBUTION OF RUDDER MAGAZINE'S READERSHIP, 1965

Sample Size = 1,650 Readers

<u>Income</u>	<u>Percent of Total</u>
Under \$ 5,000	3.5%
\$5,000 - \$ 6,999	7.9
\$7,000 - \$ 9,999	22.5
\$10,000 - \$14,999	32.5
\$15,000 - \$24,999	21.5
\$25,000 - \$34,999	6.2
\$35,000 - \$49,999	2.8
\$50,000 - \$99,999	2.4
\$100,000 - and over	0.7
Total	100.0%

Source: The Active Yachtsman, Today's Rudder Reader

Note: This survey did not state whether the above data referred to personal or family incomes.

We are informed, in a personal letter dated September 6, 1966, that the United States Power Squadrons are currently conducting a survey of their 65,000 members. (14) This will investigate boat ownership patterns, boat useage, the member's age, occupation and the length of time for which he has owned a boat. When completed, this survey should form a valuable supplement to existing information outlined above. It should be mentioned that the Rudder survey contains information on the occupations of its readership, while Boating 1965 presents information on the occupations of people purchasing outboard motors. However, these data were considered too detailed for inclusion in this chapter.

D. FACTORS AFFECTING PARTICIPATION IN BOATING

The National Recreation Survey's finding that males participated almost twice as much in boating as females has already been mentioned. It seems likely that this is related to the considerable physical exertion required in such activities as launching boats, handling sailboats in high winds, rowing, canoeing, etc.

The Survey states that "both income and time are required for participation. Not only is income significantly associated with boat ownership and operation, but available time also is essential. Residential location in relation to water has an important bearing upon time required for a boating occasion. The boat owner who lives beside the water may engage for 2 or 3 hours at a time with ease, but the man who lives further from the water must ride to the launching point, perhaps carting his boat behind his automobile. This requires time, and he may be unwilling to go boating for less than a full day's outing. Or, he may prefer to make several days of it, sleeping in the boat or camping on the bank." (15)

Age influences participation considerably. The teenage male group, for example, participated at a rate of 3.7 days per person during the summer months, on a national basis. In contrast the 65 and over age group participated only 0.18 days per person during the summer months of 1960.(16) Whites go boating about seven times as often as non-whites, a factor which is probably linked with income.

E. REGULATORY PROBLEMS OF BOATING

Apart from the very rapid growth in the total number of recreational boats in use in the U.S.A., the most significant trend in boating has been the continued increase in the horsepower of the motors in use. The average horsepower of all outboard motors sold in 1947 was only 4.7. By 1950 this had grown to 6.9 horsepower and by 1960 to 27.4 horsepower. In 1965 further increases had taken this to 28.2 horsepower. (17)

This has led to problems of boats being driven at excessive speed, of conflicts with sailboats and of water skiers using increasingly powerful craft. These factors are related to the increase in boating accidents in the U.S.A. from 3,179 in 1961 to 3,740 in 1965. Fatal boating accidents increased from 877 to 1,076 per annum in the same time period. (18)

The Wisconsin Vacation-Recreation Papers found in one study that "there appears to be substantial concern over speeding boats and water skiing. This concern is also manifesting itself in returns from other surveys being undertaken in connection with the vacation-recreation series of studies. A number of respondents attached letters to the returned questionnaires commenting on this problem. A few suggested educational

programs to encourage greater courtesy on the part of boaters and water skiers, but most of the letters called for speed regulations which could be rigidly enforced. A surprising number of respondents indicated a desire for the establishment by regulation of schedules of water hour usage which would segregate the various water activities." (19)

It appears that some kind of regulation of boating is necessary, especially on heavily-used waters. Whether this is done by designating certain hours for specified types of boating activities, or by designating certain water bodies, will depend on local geography. An alternative approach, which might be desirable, would be to consider limitations on maximum permissible horsepower ratings for the motors in use.

F. A USEFUL SOURCE ON BOATING

A very useful general source on boating is the NAEBM Boating Writers Guide. This 30-page booklet was prepared for the National Association of Engine and Boat Manufacturers, Inc. by their public relations agency, H. A. Bruno and Associates, Inc. It is available, free, from Bruno Associates at 30 Rockefeller Plaza, New York, New York 10020. It contains a brief discussion of factors affecting the growth of boating and time series on the numbers of recreational boats without motors, with inboard motors and with outboard motors, in use in the U.S.A. This time series covers the period 1947 through 1965, and is presented on a year-by-year basis. The Boating Writers Guide also contains the addresses of 22 American organizations connected with boating.

CHAPTER 12 - REFERENCES

1. Abbott L. Ferris, et. al., National Recreation Survey, ORRRC Study Report 19. Washington, D. C., 1962, p. 23.
2. Marion Clawson, Statistics on Outdoor Recreation, Resources for the Future, Inc., Washington, D. C., 1958, p. 59. This report is a useful statistical source on boating. On page 29 time series are presented on the number of outboard motors sold, the horsepower distribution of these motors, the value of the outboard motors, and details of outboard boats sold, from 1919 through 1956. Data prior to 1947 are incomplete. These data are presented at the national level. Appendix Table 10, on page 123, presents state-by-state data on sales of outboard motors, outboard boats and boat trailers for 1955 and 1956; and Boating 1965. This 8-page folder is a useful statistical source, giving the estimated sales of outboard motors on a state-by-state basis for 1964 and 1965, in addition to the estimated number of outboard motors in use as of December 31, 1965. The folder is available free from either the National Association of Engine and Boat Manufacturers, 420 Lexington Avenue, New York, New York, or the Marketing Department of the Boating Industry Association, 333 North Michigan Avenue, Chicago 1, Illinois. The Boating Industry Association represents the Outboard Motor Manufacturers Association, the Outboard Boat Manufacturers Association, the Boat Trailer Manufacturers Association and the Outboard Boating Club of America.
3. Boating 1965, p. 5.
4. Statistics on Outdoor Recreation, p. 123.
5. See reference 2.
6. Boating 1965, p. 3.
7. Ibid., p. 3.
8. Boating 1965, p. 2; and Recreational Boating Statistics 1965, Treasury Department, U. S. Coast Guard, Washington, D. C. 20226, May 1966, p. 1.
9. Boating 1965, p. 3.
10. The Active Yachtsman, Today's Rudder Reader, pub. Fawcett Research Company, 67 West 44th Street, New York, New York 10036. No date given. 14 pages.

CHAPTER 12 - REFERENCES, CONT'D.

11. National Recreation Survey, p. 24.
12. Ibid., p. 24.
13. It was not stated whether this figure was personal income or family income.
14. When completed, this survey will presumably be available from the United States Power Squadrons, National Headquarters, 96 West Street, Englewood, New Jersey 07831.
15. National Recreation Survey, p. 23.
16. Ibid., p. 24. The researcher who is investigating factors affecting participation should consult this page and page 25 of the National Recreation Survey.
17. Boating 1965, p. 5.
18. Recreational Boating Statistics 1965, p. 9.
19. I. V. Fine and E. E. Werner, Private Cottages in Wisconsin, University of Wisconsin, Madison, Wisconsin, 1960, p. 6.

CHAPTER 13

SKIING IN THE UNITED STATES

A. INTRODUCTION

Skiing is probably the most glamorous form of outdoor recreation in the United States today. It is a relatively new type of outdoor recreation, since the first rope tow east of the Missouri was operated at Woodstock, Vermont in 1934--a mere thirty-two years ago. The greatest growth in skiing participation and in the number and size of ski areas has occurred in the past ten years. The advent of artificial snow-making machinery has spread skiing into areas which previously had little natural snow. An example is the Great Smoky Mountains of Tennessee and North Carolina where the first ski resort in the South opened at Gatlinburg, Tennessee, in the winter of 1961.

Skiing is still a relatively minor form of outdoor recreation, however, when viewed at the national level. The National Recreation Survey stated that "snow skiing in winter is an activity of only 2% of the population 12 years of age and over (In March 1961 when this part of the Survey was conducted). Four percent of the population engage in the Northeastern States, compared with 2% in the North Central and West. The percentage participating in the South is near zero." (1) Although beneficial to local tradesmen, motelier and the like, skiing often represents a marginal form of investment, as the published results of many publicly owned New England ski areas show. (2) In addition, skiing probably has a higher risk factor for invested capital than most other forms of outdoor recreation.

B. THE NATIONAL SKI CENSUS - 1962

On February 11, 1962, the National Ski Association of America held its first national ski census. The memorandum report on this census states: "The results of the census are not too impressive . . . some regions were rather weak with half or less of the areas queried reporting. A particularly large hole was noted in the New England area where most of the major ski areas filed no reports . . . In general, ski conditions throughout the United States on February 11 weren't of the best. California had a heavy rain, and snowstorms that weekend either washed out many areas or plugged their access roads with snow. . (consequently it was) decided to postpone the (Californian) count until

the following week . . . It appears that the oneday total might be increased by as much as 75% to come up with an accurate . . . (Skier total) for a normal ski day on this date." (3)

The results of the census are presented below in Table 13-1.

TABLE 13-1

RESULTS OF THE NATIONAL SKI ASSOCIATION'S 1962 NATIONAL SKI CENSUS

<u>State</u>	<u>Total</u> <u>Skiers</u>	<u>Ticket-Buying</u> <u>Skiers</u>	<u>Skier</u> <u>Man-Days</u> <u>1960-61</u>
Northeast			
Maryland, Virginia, W. Virginia	1,185	877	Not Available
Pennsylvania, New Jersey	992	762	13,400
Connecticut, Massachusetts	7,198	6,780	121,650
Vermont	2,926	2,552	96,400
New Hampshire	5,719	5,045	76,153
Maine	2,813	2,408	67,220
New York	17,125	13,177	304,137
North Central			
Michigan	16,866	Not Available	221,801
Minnesota	1,429	Not Available	28,112
Wisconsin	5,205	Not Available	63,641
West			
Montana	2,915	2,275	126,856
Wyoming	523	456	25,521
New Mexico	1,359	1,259	23,000
Colorado	10,609	8,144	408,138
Utah	1,170	987	90,267
Idaho	2,044	1,813	140,516
California	18,120	16,276	723,839
Alaska	1,210	733	28,815
Washington	14,198	10,264	648,879
Oregon	7,395	5,890	239,972
U. S. A. Total	119,999	79,678	3,448,767

Source: Final Report, National Ski Census, February 11, 1962, 5-page mimeographed manuscript available from the National Ski Association of America, The Broadmoor, Colorado Springs, Colorado.

Notes on Table 13-1:

Md., Va., W. Va., Penna., N. J., Conn., Mass., Vt., N.H., Me., and N.Y. figures are from 63 returns. There were probably 150 areas operating in these states on February 11, 1962.

Mich., Minn., Wis., figures are from 51 returns. There were probably 100 areas operating in these states on February 11, 1962.

Mont., Wyoming, N. Mex., Colorado figures are from 34 returns. There were probably 45 areas operating in these states on February 11, 1962.

Wash., Oregon, Alaska figures are from 30 returns. There were probably 37 areas operating in these states on February 11, 1962.

Original census was aggregated according to regional divisions of the National Ski Association. These totals have been somewhat rearranged.

C. SKIING IN THE NORTHEAST OF THE U.S.A.

The 1962 National Ski Census was based on an actual head count of skiers present and records of tickets sold at the various ski areas in the U.S.A. Another attempt at quantifying the scale of participation in this sport and its market potential is The Skier Market - Northeast North America. This excellent study, conducted by Sno-Engineering, Inc. for the Area Redevelopment Administration in the winter of 1962-63, was based on a main sample of 19,903 randomly-selected interviews of skiers waiting in lift lines. It was supported by a subsample of 1,710 interviews conducted on a similar basis. Of the detailed questionnaire sent to each of the interviewees, 951 usable returns were received. (5)

In order to expand the sample into the universe which it represented, each of the 19,903 primary interviewees was asked if they were a member of the U.S. Eastern Amateur Ski Association. 10.33% of them were members. This percentage was adjusted to counter the statistical bias inherent in the fact that U.S.E.A. Ski Association members participated in skiing more heavily than the general public and so had a greater probability of selection for interview under random sampling techniques.

This operation reduced U.S.E.A. Ski Association members to 5.60% of the total skier population in Northeast North America in the winter of 1962-63. The weighted average membership of U.S.E.A. Ski Association for 1962-63 was 25,063. Sno-Engineering then made the very reasonable assumption that this figure represented 5.60% of the total skier population of Northeast North America in that year. In effect, there were 447,570 skiers in this area in the winter of 1962-63. (6)

Northeast North America was defined as the six New England states, New York State, Pennsylvania, New Jersey, and Province of Quebec.

It is difficult to make any precise comparison of this figure with those of the National Ski Census. The Census total for Pennsylvania, New Jersey, New York, and the New England states was 36,773 skiers. This represented 63 out of a possible 150 ski areas. If we make the herioc assumption that every ski area was of equal size and used by an equal number of skiers, the 36,773 figure can be treated as a sample of a universe of about 92,000 skiers.

The number of skiers from Quebec and other areas outside Northeast North America was estimated by Sno-Engineering to be 74,600.(7) If this figure is subtracted from the 447,570 total, a remainder of 372,900 skiers is obtained as the size of the ski market in the New England states, New York State, New Jersey, and Pennsylvania. This implies that about one skier in every five active in this sport was out on the slopes on February 11, 1962, in these nine states. While these calculations are very rough, they might provide a crude multiplier to use on the National Ski Association's data in order to estimate skier populations in the several states.

D. THE GROWTH OF SKIING

It is extremely difficult to accurately measure the growth of skiing in any part of the United States, because reliable time series on participation in this sport are not available. The Sno-Engineering study formulated a measure of the upper limits of growth by asking their main sample of interviewees when they first started to ski. The answers, in effect, gave a cumulative measure of the numbers of people who had participated in skiing in any given year, back to 1941. However, Sno-Engineering assumed that these people had actively participated in skiing in every subsequent year through to the survey year of 1963-64.

A trend line was fitted to the cumulative time series of numbers of people with experience in skiing. The line indicated that "over the past 23 years the number of skiers comprising the skier market in Northeast North America have grown at some rate not in excess of 10.7% annually . . . Over the past eleven years this ceiling has increased to 16.7% annually." (8) This statement was made in 1964. As the Sno-Engineering report observed, "No measure of skiers ceasing to participate has been incorporated, thus the true growth rate in number of skiers is definitely lower than shown." (9)

The following season, Sno-Engineering made a re-run of their 1962-63 study to find out how many 1962-63 season skiers had ceased to participate in the sport. They found that "13% of the 1962-63 skier

market or some 59,000 skiers failed to participate during (the winter season of) 1963-64." (10)

Sno-Engineering, however, was not dismayed since a survey of 62 persons who had "dropped out" since the previous season showed that 90.2% of them "intend to ski again in the future . . . The large majority of reasons how that the respondents lacked either time, economic means or proximity to ski areas but not desire . . . Students, who are a large segment of the skier market, are forced to drop or severely curtail skiing during the period immediately after graduation due to one or more of the recorded reasons--marriage, birth of a child, new job, new economic responsibilities, Military Service, etc.. As the years pass and circumstances permit, they return to the slopes." (Emphasis added.) (11)

The last sentence is all important. It is presented in the Sno-Engineering report as though it were an observed fact. In reality, it is an hypothesis. Currently there are no available data which would either prove or disprove this hypothesis. Until such data become available, it is safest to treat this statement as an hypothesis. Sno-Engineering's claim that the "Permanent dropout rate among the 1962-63 skier market is 1.3%" (12) may be too low. Clearly, this represents the optimum end of a range for which the pessimistic estimate is 13.2% per annum.

Consequently, Sno-Engineering's statement that "assuming this (permanent dropout) rate has remained constant over the past 12 years, and here we have no way of testing or measuring this (emphasis added), the net growth rate can be estimated by subtracting (1.3%) from the ceiling rate of 16.7% . . . (Net) Growth in numbers of active skiers over the past 11 years is (therefore) estimated at 15.4% annually". (13) However, taking the pessimistic permanent dropout rate of 13.2%, net growth in the number of active skiers over the past 11 years has been a mere 3.5% annually. This author would suggest that the true growth rate for Northeast North America lies somewhere between the two figures.

E. THE GROWTH IN SKI FACILITIES

Fortunately, growth in the number of available facilities for skiing can be measured with greater precision than growth in the number of active skiers. Vermont has experienced the most rapid growth of any Eastern states in terms of its ski facilities. This is illustrated in Table 13-2, on the following page.

TABLE 13-2

GROWTH IN MAJOR SKI AREA FACILITIES IN VERMONT

1947 - 1961

	<u>Winter of</u> <u>1947-48</u>	<u>Winter of</u> <u>1960-61</u>
Number of major areas	7	20
Number of cable-type lifts	10	60
Length of lifts, in feet	27,380	179,068
Vertical ascent of lifts, in feet	9,120	46,940
Capacity of lifts, in persons per hour	6,180	51,170

Source: The Tourist and Recreation Industry in Vermont, p. 61.

Notes: A "cable-type lift" is a gondola, chair, poma, or T-bar lift.
A "major ski area" is one containing at least one cable-type lift.
One major ski area was not included in the 1960-61 listing.

While the growth of ski facilities in other Eastern states has been less spectacular, it has followed the general trend established in Vermont. It seems that growth in ski area facilities has been so rapid that supply is beginning to exceed demand in the East. Theodore A. Farwell, Jr., Director of Research at Sno-Engineering, has stated that, "If demand continues to grow at 15.4% annually and supply at 25.8%, many marginal operations will cease to exist . . . Even the larger developments will feel the effect of over-building and the resultant extreme competition. Purely quantitative analysis suggests a trend towards temporary overcapacity. A continuation of this trend will precipitate financial failure in less than three years for poorly conceived, undercapitalized, badly managed areas."⁽¹⁴⁾

F. SKI AREAS AS A BUSINESS OPPORTUNITY

A thorough and well-documented analysis of the financial and investment aspects of ski areas is Peter C. DuBois' article, "Financial Sitzmarks - Skiing Has Proven More Rewarding to Sportsmen than to Investors." This appeared in Barron's Magazine for February 7, 1966. In this article DuBois examines the financial records of about sixteen New England ski areas which are public corporations and therefore under legal obligation to publish a financial statement.

He writes, "typically, Sugarbush lost \$90,000 (in fiscal year 1965), against a profit the year before of \$19,500. Glen Ellen reported that the (poor winter of 1964-65) . . . set back its development

program at least a year. By its second season, the resort has hoped to break even; instead it dropped \$88,6000, even more than the first year's deficit of \$84,700. . . For its part, Mr. Mansfield lost a whopping \$343,000 in fiscal 1965, against a profit of \$1,800 the year before, while Weyerhauser's Jay Peak schussed to a \$58,200 deficit against a net (income) of \$18,200. In each case, the '65 loss wiped out cumulative earned surplus on the balance sheet." (15)

A more general picture of the fiscal results of 14 New England ski areas is given in Table 13-3.

TABLE 13-3

FINANCIAL RESULTS OF 14 NEW ENGLAND SKI AREAS

<u>Area</u>	<u>Number of Years</u> <u>Operating at a</u>	<u>Number of Years</u> <u>Operating at a</u>	<u>Cumulative</u> <u>Net Profit</u>
	<u>Profit</u>	<u>Loss</u>	
Glen Ellen	0	2	Nil
Haystack	0	1	Nil
Hogback	6	4	5.34%
Jay Peak	5	1	Nil
Mad River	7	3	4.36%
Magic Mountain	2	3	Nil
Mount Mansfield	6	4	Nil
Mount Tom (Massachusetts)	3	0	7.9%
Okemo	7	0	8.06%
Sherburne	6	1	4.91%
Stratton	3	1	4.74%
Sugarbush	4	3	Nil
Sugarloaf	9	1	9.42%
Wildcat	2	6	Nil

Source: Barron's Magazine, February 7, 1966.

It will be seen that, while ten of the above ski areas have had more years in which a profit rather than a loss was incurred, only seven of the ski areas have had no more than one year in which a loss was incurred. It appears that in a year when a profit is made, the net profit margin tends to be small. In contrast, when a bad year with poor snow conditions is experienced, the loss sustained tends to be very great--indeed, in most cases large enough to wipe out the cumulative earned surplus from several earlier years. It will be noticed that only two of the fourteen ski areas have succeeded in operating continuously with no loss at all.

These findings are parallel to those of Jan W. Sissener whose 1960 report, entitled The Ski Lift Business in New England, concluded that the profitability of New England ski areas in general was "very close to zero." (16) No published analysis of the financial results of ski areas in the South, the Midwest, and the West is available, to our knowledge.

Further research along the lines of DuBois' article and Sissener's study would be valuable in determining whether ski areas in other parts of the U.S.A. are as financially marginal as those in New England. A correlation analysis of financial results, locational advantages and disadvantages, capital investment involved, type of facilities offered, quality of management and so forth, might be useful in quantifying those factors which contribute most to making a ski area successful.

G. WHY ARE MANY SKI AREAS FINANCIALLY MARGINAL?

The demands of the skiing public and methods of supplying them have changed radically over the past twenty years. Before the Second World War there were many small ski areas in operation, some of which had improvised rope tows. The facilities provided were crude in the extreme and the capital investment involved was low.

In the 1950's, the demands of the skiing public became more sophisticated--favoring the chair lift and the T-bar lift. Additionally, the public holiday and weekend skiers, who make up the majority of all skiers, became impatient of long lift lines. The ski areas responded by installing high-capacity double chair lifts and gondola lifts, both of which involve heavy capital investment. (17) The skiing public also demanded better base facilities, usually with a restaurant, and metal rather than wood skis from the facility's rental store. This, in turn, pushed up the minimum capital investment required to start a new ski area.

The revenues which a ski area operator derives from his facility come largely from the sale of ski lift tickets. Yet only 386,000 skiers bought lift tickets during the 1962-63 ski season in the six New England states, New York, New Jersey, and Pennsylvania. At this time, over 100 ski areas were competing for the available skier market. Reference to Table 13-1 will show that on February 11, 1962, only 79,678 of the 119,999 skiers out on the slopes that day had purchased tickets. This represents 66.4% of the skiers active that day. The market is becoming increasingly competitive and will become more so as ski operators continue to install new capacity in the hope of luring skiers away from other, more crowded areas.

A final factor is the relatively short season during which

major capital outlays must be recouped. A study of skiing in Wisconsin found that "the average length of the 1959-60 (ski) season in Wisconsin was found 10 weeks. Although a few areas are open seven days a week, the average for all areas was four days. In other words, the average ski area is in use for 40 days during the season." (18) While similar reservations should be made for many New England ski areas and those in the South, the Mountain states and the West enjoy more substantial seasons. Aspen, in Colorado, had 147 skiable days during the winter of 1964-65, which is a 21 week season. Even for Aspen, however, this was a very good season.

H. WEEKEND AND WEEKDAY SKIING, CAPACITY VERSUS USAGE

A root cause of many ski areas' financial difficulties is the heavy peaking of demand over weekend and public holidays. The Skier Market - Northeast North America study found that supply outstripped demand by a factor of three during vacation periods, and by a factor of about three and a half during mid-week periods. The precise findings are outlined in Table 13-4, below:

TABLE 13-4

DEMAND VERSUS SUPPLY, IN ANNUAL SKIER DAYS, FOR THE SIX NEW ENGLAND STATES, NEW YORK STATE, PENNSYLVANIA, AND NEW JERSEY

	<u>Overall Ski Area Capacity</u> <u>(Supply)</u>	<u>Ski Area Usage</u> <u>in 1962-63</u> <u>(Demand)</u>
Weekend and Holiday Periods	4,051,014	4,950,000
Vacation Periods	3,586,430	1,090,000
Mid-Week Periods	6,137,900	1,880,000
Total	10,188,914	7,920,000

Source: The Skier Market - Northeast North America, p. 61.

A very similar finding was made in Wisconsin in the winter of 1959-60. This is documented in Table 13-5.

TABLE 13-5

DEMAND VERSUS SUPPLY IN WISCONSIN, WINTER OF 1959-60

	<u>Average Daily</u> <u>Capacity</u>	<u>Average Daily</u> <u>Use</u>	<u>Percent of Capacity</u> <u>Being Used</u>
Small Ski Areas	4,460 skiers	1,885 skiers	42.3%
Large Ski Areas	13,800 skiers	4,380 skiers	31.7%
Total	18,260 skiers	6,265 skiers	34.3%

SOURCE AND NOTES FOR TABLE 13-5

Source: The Economic Significance of Skiing in Wisconsin, p. 2

Notes: The data are drawn from the returns of 22 Wisconsin ski areas.
A "small ski area" was defined as one with three ski tows or less.
A "large ski area" was defined as one with more than three ski tows.

Only in the West does one find a substantial number of all skiers taking ski vacations, and thereby spreading demand through the week. At Aspen, for example, the average length of stay during the winter of 1964-65 was seven days, an average which no Eastern or Southern ski area can match. Many New England ski areas actually close down midweek, since demand is so low as to make running the lifts uneconomical.

I. EXPENDITURES MADE BY SKIERS

In both the Wisconsin and the Northeast North America studies it was found that there are four major items of expenditure in the skier's budget. These are transportation, ski lifts, lodging, and meals. The percentage of the skier's dollar which each of these represents changes slightly depending on whether the skier is on a day trip or a skiing vacation. A more detailed statement of these findings is given in Tables 13-6 and 13-7 below:

TABLE 13-6

BREAKDOWN OF PER TRIP EXPENDITURES BY WISCONSIN SKIERS IN 1959-60

Sample Size = 474 Skiers

Lodging	20.7%
Ski Lifts	19.8%
Food	19.6%
Transportation	16.8%
Amusement, including after ski activities	8.6%
Ski Equipment Rental	2.0%
Ski Instruction	1.4%
Other Expenditures	<u>11.1%</u>
Total	100.0%

Source and average expenditures are given on the following page.

TABLE 13-6 (CONTINUED)

Average Expenditure: \$56.39 per ski trip
1959-60 Average Expenditure for Equipment Purchases:
\$79.20 per ski season

Source: The Economic Significance of Skiing in Wisconsin, p. 5.

TABLE 13-7

BREAKDOWN OF DAILY EXPENDITURES BY SKIERS IN NORTHEAST NORTH
AMERICA IN 1963-64, WHILE AT DESTINATION

Sample Size = 230 Skiers

	<u>Day Trippers</u>	<u>Skiers Remaining Away from Home Overnight</u>
Lodging and Meals	31.8%	45.9%
Ski Lift Tickets	52.2%	34.6%
After Ski Activities	13.5%	16.7%
Ski Equipment Rental	1.2%	0.7%
Ski Instruction	<u>1.3%</u>	<u>2.0%</u>
Total	100.0%	99.9%

Average Expenditure at Designation: \$7.44 per day \$16.26 per day

Source: The Skier Market in Northeast North America, pp. 21a-22a.

J. SOURCES ON OTHER ASPECTS OF SKIING

It is beyond the scope of a brief survey such as this chapter to investigate all aspects of skiing in relation to planning. Consequently, this section is intended to locate some of the published material available on aspects not discussed in the body of the chapter.

1. The Job-Generating Effects of Skiing

Chapter 9 of The Tourist and Recreation Industry in Vermont is entitled "Employment at Vermont Ski Areas." This ten page chapter reports on a thorough survey of 18 major ski areas in Vermont, in 1959-60. In this season the total employment of all major and minor ski areas was not greater than 1,150 persons, barely 0.8% of average total employment in Vermont during 1960. The Tourist and Recreation

Industry in Vermont is available from the Vermont Development Department, Montpelier, Vermont, price \$1.

2. Methods of Encouraging Ski Area Development

Reprints of the Interim Report to the 1961 New Hampshire Legislature, Senate Joint Resolution No. 1, March 1, 1960, entitled Winter Facilities Development Committee are available from the New Hampshire State Planning and Development Commission, Concord, New Hampshire. This 16 page booklet outlines a number of ways in which the State of Vermont had encouraged ski area development and discusses their applicability to New Hampshire. Similar methods could probably be used elsewhere.

On page 13 of that report is an outline of the number of major ski areas and major ski lifts installed in New Hampshire, Vermont, Maine, Massachusetts, and Connecticut. Capacities of the ski lifts are also included. Page 14 lists the major new ski facilities installed in New England, parts of Canada, and Eastern U.S.A. in 1960-61. This indicates the magnitude by which supply is increasing.

3. Socio-Economic Characteristics of Skiers

Much valuable information on this topic is available in The Skier Market in Northeast North America--1965 Edition, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402, price \$4. Information on the occupations and family incomes of skiers in Wisconsin can be found on page 10 of The Economic Significance of Skiing in Wisconsin. This excellent 14 page report is available free from the Bureau of Business Research and Service, School of Commerce, University of Wisconsin, Madison, Wisconsin 53706.

4. Miscellaneous Sources on Skiing

Chapter 8 of The Tourist and Recreation Industry in Vermont is entitled "Vermont's Ski Facilities." This seven page chapter contains an outline survey of the state's ski areas, their receipts and the relationship of these receipts to the U.S. Census of Business.

The magazine Sports Illustrated, for November 21, 1960 contains a detailed account of the growth of the ski business in New England.

The marketing magazine Sales Management, for February 17, 1961 contains a useful article entitled "Schussing Along with the Ski Craze."

Annual or biennial consumer surveys have been conducted by both SKI Magazine and Ski Industries of America. These can be obtained

from SKI Magazine, Universal Distributing and Publishing Corporation, 800 Second Avenue, New York 17, New York or Ski Industries of America, 444 Madison Avenue, New York 22, New York.

The Ski-Faring Guide to Ski Areas and Lodging, available from Ski-Faring, Inc., 601 N. Fairbanks Court, Chicago, Illinois 60511, at a price of \$1, is primarily intended as a guide for skiers in the selection of their skiing venue. However, since it contains a wealth of information on the number and type of ski lifts available at individual areas, their maximum vertical drops, and lift capacity per hour, it can be used as a sourcebook for regional analyses of ski areas or feasibility studies. Although a new version of the Guide is published each year, the information contained is not always accurate.

Several other sources are identified in the References to this chapter.

CHAPTER 13 -- REFERENCES

1. Abbott L. Ferris, et al., National Recreation Survey, ORRRC Study Report 19, Washington, D.C., 1962, p. 19. Skiing received only brief coverage in the Survey, which limits itself to a one page coverage of the sport, and to three related tables.
2. Peter C. DuBois, "Financial Sitzmarks, Skiing Has Proven More Rewarding to Sportsmen Than to Investors," Barron's Magazine, February 7, 1966.
3. Final Report, National Ski Census, February 11, 1962, 5 page mimeographed manuscript report available from the National Ski Association of America, The Broadmoor, Colorado Springs, Colorado, pp. 1-2.
4. Sno-Engineering, Inc., The Skier Market-Northeast North America, Washington, D.C., March 1964. This report and a follow-up study undertaken in the winter of 1963-64, are available in a jointly-bound format entitled The Skier Market in Northeast North America-1965 Edition, Pub. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, February 1965. The price of \$4 must accompany the order.
5. The Skier Market - Northeast North America, March 1964, p. 3.
6. Ibid., p. 4. A Student's T-Test on this estimate showed that there was a 95% probability that the true market size lay between 423,000 skiers and 475,000 skiers.
7. Ibid., p. 14.
8. Ibid., p. 12.
9. Ibid., p. 12.
10. The Skier Market in Northeast North America - 1965 Edition, Synopsis of Findings.
11. Ibid., p. 13a.
12. Ibid., p. 13a.
13. Ibid., p. 13a.
14. DuBois, "Financial Sitzmarks".

15. DuBois, "Financial Sitzmarks . . ."
16. Jan W. Sissener, The Ski Lift Business in New England, Federal Reserve Bank of Boston, 1960. Unfortunately this excellent study is now out of print. File copies may be consulted at the Federal Reserve Bank's offices at 30 Pearl Street, Boston.
17. A recent quotation by an American ski lift manufacturing firm for a 2,700 foot long double chair lift (slope length), which has come to the author's notice was \$73,400, plus \$3,200 for the survey and construction of foundations, plus \$4,000 for the erection of the lift, plus \$8,860 for associated expenses.
18. I. V. Fine and E. E. Werner, The Economic Significance of Skiing in Wisconsin, Wisconsin Vacation-Recreation Papers, Vol. 7, University of Wisconsin, School of Commerce, Bureau of Business Research and Service, Madison, Wisconsin, 1960, p.2.

CHAPTER 14

HUNTING IN THE UNITED STATES

A. INTRODUCTION

Hunting in the United States has a sizable following. The 1960 National Survey of Fishing and Hunting reported that there was a total of 14,637,000 hunters, or 1 in every 5 men, in the United States.

1. Their expenditures in 1960 totalled \$1 billion on such items as hunting equipment, transportation expenses and fees.
2. The highest regional percentage of hunters was found in the Mountain, West North Central, West South Central and East South Central regions.
3. The greatest percentage of hunters was found in rural areas.

B. PROBLEMS OF HUNTING LAND AVAILABILITY

Land available for hunting is limited. The accessibility of game generally depends on the time and distance involved in getting to the hunting area, the quality of roads travelled and the roughness of the terrain encountered after leaving the road. The number of access roads is still far from adequate.

Beginning in 1872 the system of national parks was started, providing protection for the fish and game within the park. Hunting, trapping, and fishing were generally prohibited. Since then many areas in the national parks have become overpopulated with wildlife according to ORRRC Report 6, and the National Park Service is facing increased pressure to allow public hunting ⁽⁵⁾.

The availability of public hunting land has been affected by the closure of many access routes. This problem is most serious in the West.

A study made in Colorado in 1958 shows that free public access was being denied to about 1,462,720 acres of Federal land in 28 counties in Colorado. This was about 12 percent of all good Federal hunting and

fishing lands in those counties. In some of these counties as much as 98 percent of the Federal land was unavailable to sportsmen due to this problem of access routes (6).

Another problem is the closure of private lands to hunting. Private hunting clubs as well as private owners have closed off much land that was good for hunting. Many of these clubs purchased large holdings of land when it was relatively cheap and abundant, and seem to have little interest in managing these properties for forest products or for wildlife.

One solution to this problem might be the development of more commercial shooting preserves "privately owned and operated areas on which pen-raised game is released for hunting usually upon payment of a fee by the shooters" (7). This has been successfully implemented in Texas where the Sportsmens' Club of Texas recently fenced in a tract of about 4,000 acres close to the city of Pineland, and stocked it with wild deer from west Texas. This tract, known as the Scot Deer Hunting Reservation, is open during the hunting season on a fee basis. Hunters come from a considerable distance to use it because they know that a plentiful supply of game is guaranteed (8).

Another solution might be the leasing of private land for farm-game hunting purposes. In 1948 the Florida Fish and Game Commission undertook to lease about 100,000 acres from two lumber and land companies. By 1956 it had the jurisdiction of nearly 4 million acres of private land most of which was open for public hunting. Much of the land produces farm game. Part of the state's agreement, in addition to fire protection and law enforcement, has to do with game habitat improvement. The hunter pays a fee for the hunting privilege, and the revenues raised in this way are used to purchase more land and arrange more leases (9).

C. OUTLINE SURVEY OF THE FACTORS INFLUENCING GAME SUPPLY (10)

The factors involved include:

1. The loss of habitat by conversion to other uses.
2. Deterioration of habitat quality due to overuse (such as overgrazing by domestic livestock, conversion of extensive acreages to pine forest, conversion from general farming to grass, or excessive drainage), due to natural succession (shifts to grass or brush, or to a high closed forest), and due to environmental pollutants.
3. Unfavorable agricultural crop practices.

4. Unfavorable forestry practices.

D. THE VALUE OF HUNTING IN COST-BENEFIT ANALYSIS

The Fish and Wildlife Service is quoted in ORRRC Report 24 as placing the following judgmental values on different types of hunting (11).

<u>Item</u>	<u>Range of Values per Recreational Day</u>
Hunting small game (mammals)	\$0.50 to \$1.50
Hunting small game (birds)	\$1.00 to \$3.00
Hunting water fowl	\$1.50 to \$4.50
Hunting big game (deer and antelope)	\$1.50 to \$4.50
Hunting other types of big game	\$2.00 to \$6.00

The Governmental Inter-Agency Committee on Water Resources adopted this schedule in October, 1960. It seems to be the best currently available.

E. THE ECONOMIC SIGNIFICANCE OF HUNTING IN WISCONSIN

The only regional treatment of the economic importance of hunting discovered in the course of this study is one of the Wisconsin Vacation-Recreation Papers (12). This Paper, entitled Economic Significance of Hunters in Wisconsin, surveyed conditions in that state in 1959.

An examination of license sales made by the Wisconsin Department of Conservation showed that only a negligible proportion of licensed hunters were from out-of-state. A mere 1.4% of the 659,180 hunters in Wisconsin in 1959 were not Wisconsin residents (13). This figure implies that the income redistributing effects of hunting in Wisconsin are largely confined within the state. This is, perhaps, surprising in view of the proximity of major metropolitan areas such as Chicago and Minneapolis-St. Paul. However, it does support the finding of the 1960 National Survey of Hunting and Fishing that the majority of hunters live in rural areas.

An additional feature brought out by the Wisconsin study was that more than 55% of the small and large game hunters surveyed had family incomes lower than \$6,000 per annum. This group of respondents represented a universe of 567,835 licensed hunters--some 86.1% of the total of all licensed hunters. Thus, there is strong evidence that,

in Wisconsin at least, hunting is not predominantly a rich man's sport, a fact further supported by the large numbers of craftsmen, foremen and non-farm laborers who hunted in Wisconsin in 1959.

Although the Wisconsin study estimated that hunters spent a total of 3,618,683 nights away from home on hunting trips in 1959, "it was apparent that a substantial number of hunters were spending the night in their trucks, station wagons, or cars".(14) Consequently, commercial accommodations received little benefit from the hunters.

The average amount spent on hunting trips by small game hunters in Wisconsin in 1959, for example, was \$67.18. Of this a mere \$6.99 was spent on hotels and motels. Other expenditures by small game hunters averaged \$5.12 spent in restaurants, \$5.65 spent on ammunition, \$7.06 spent on clothing, \$7.87 spent on amusements and \$11.63 spent on transportation (15).

While the total expenditure on hunting trips by all Wisconsin hunters came to \$75 million in 1959, a further \$57 million was spent on equipment. The equipment expenditures included items such as boats and boating, trailers and other camping equipment, fishing tackle and hunting equipment. While these cover a wide range of items, the amount spent on them illustrates the fact that the manufacturers and retailers of sporting goods derive almost as much economic benefit from recreation as do the residents of the area used by the recreationer.

F. FACTORS AFFECTING PARTICIPATION IN HUNTING

ORRRC Study Report 19, entitled National Recreation Survey, has a useful summary section on this topic on pages 36 through 42. The ORRRC study found that there were about twice as many hunting days per person in the South than in the Northeast and West in 1960. They also found that hunting is almost exclusively a male form of outdoor recreation. Among males, participation in this sport declines with age, the decrease being fairly uniform with advancing age.

"The number of days hunting per person is indirectly associated with size of place of residence. As residence becomes more rural, hunting rates increase", the National Recreation Survey concluded (16). It tended to support the Wisconsin study in its examination of the relationship between participation in hunting and socioeconomic status. "The association between hunting and income is negligible. If anything, participation is somewhat higher in the lowest income class and the highest income class, and lower between them" (17).

G. AN IMPORTANT STATISTICAL SOURCE ON HUNTING

Marion Clawson's Statistics on Outdoor Recreation, which was published by Resources for the Future, Inc., in April 1958, contains an excellent section on hunting. This appears in the chapter entitled "Hunting and Fishing as a Type of Outdoor Recreation," on pp. 93 through 103. In this chapter Clawson examines the usefulness of available data on the sales of hunting licenses. He presents data on sales at the national level of resident and nonresident hunting licenses for fiscal years 1923 through 1956. Data on sales of Federal duck stamps are presented for fiscal years 1935 through 1956. Regional trends in the purchase of hunting licenses are discussed and mapped. Clawson also discusses the relationship between the number of hunting licenses sold in various regions and the number of fishing licenses sold.

In the Appendix Tables found on pages 146 through 155 of Statistics on Outdoor Recreation, details of resident and nonresident hunting license sales, fees paid by hunters for these licenses, and the number of federal duck stamps sold, are presented on a state-by-state basis. These data are given for the years 1941 through 1956. They would be of value in any regional analysis of trends in hunting.

CHAPTER 14 -- REFERENCES

1. U. S. Department of the Interior, National Survey of Fishing and Hunting, 1960, p. 27.
2. Ibid., p. 10.
3. Ibid., p. 25.
4. Ibid., p. 27.
5. Department of Conservation, School of Natural Resource, University of Michigan, Hunting in the United States - Its Present and Future Role, ORRRC Study Report 6, 1962, p. 28.
6. Report to the Colorado General Assembly, Hunting and Fishing Problems in Colorado, by Joint Legislative Committee created by H.J.R. 10, Second Regular Session, 41st General Assembly, January 1959.
7. A Recommendation made by the Sportmen's Service Bureau.
8. Information taken from Hare and Hare, Recreational Potential of Sam Rayburn Reservoir, 1965, pp. 13-14.
9. Cleveland Van Dresser, "Elbow Room for Sportsmen," American Forests, June 1956.
10. Based on Chapter 4 of Hunting in the United States - Its Present and Future Role.
11. Outdoor Recreation Resources Review Commission Staff, Economic Studies of Outdoor Recreation, ORRRC Study Report 24, pp. 57-58.
12. I. V. Fine and E. E. Werner, Economic Significance of Hunters in Wisconsin, Wisconsin Vacation-Recreation Papers, Vol. 1 No. 6, 1960, University of Wisconsin, School of Commerce, Bureau of Business Research and Service, Madison, Wisconsin.
13. Ibid., p. 1.
14. Ibid., p. 3.
15. Ibid., p. 4.

CHAPTER 14 -- REFERENCES, CONT'D

16. Abbott L. Ferriss et al., National Recreation Survey, ORRRC Study Report 19, p. 36.
17. Ibid., p. 37.

CHAPTER 15

SPORT FISHING IN THE UNITED STATES

A. INTRODUCTION

The National Survey of Fishing and Hunting for 1960 reported that there were more than 25,300,000 persons 12 years of age or older in the United States who fished in 1960 ⁽¹⁾. This number represented an increase of 21.6 percent during the previous five years. Expenditures on sport fishing in 1960 amounted to almost \$3 billion ⁽²⁾. At that time, one in every four American men fished. This is evidence of sport fishing's great popularity. The sport provides year-round recreation for participants from all parts of the U.S.A., from all socio-economic levels and age groups.

The National Survey gives some general characteristics of sport fishermen. 10% of them live in large cities, 16% in small cities, 21% in towns, while 25% of them live in rural areas ⁽³⁾. The age group which contained most sport fishermen in 1960 was 45 through 65. Over 6 million participants in this sport were in this age bracket. The age groups 25-35 and 35-45 had about 5 million fishermen in them in 1960 ⁽⁴⁾. Fishermen do not seem to be concentrated in any particular income group. However, the authors of ORRRC Study Report 7, Sport Fishing - Today and Tomorrow, believe that "fishing, like other forms of recreation, is governed to a large extent by the disposable income available on a national, regional, or local basis."

B. PROBLEMS OF SUPPLY OF FISH AND FRESH WATER

A major problem in sport fishing is that of conflicting demands on the inland fresh water supply available for fishing. Water is demanded for many uses against which sport fishing must generally compete. These include municipal water for domestic and industrial consumption, irrigation, and electric power generation. The diversion of water for such uses can profoundly affect the habitat of fish because of a reduction in the physical quantity of water and the changed quality of the water returned to streams and rivers.

Pollution presents a serious problem. Industrial waste in concentration is toxic to fish. Some organic wastes have such high

biochemical oxygen demands (B.O.D.) that the fish are denied oxygen. Many metals, in suspension in the water, will smother fish. Treatment of industrial pollution is expensive, but may become commercially worthwhile if marketable raw materials can be recovered. Domestic waste disposal, especially of household detergents, also presents a major threat to fish life. Pesticidal chemicals used in agriculture often enter surface waters through irrigation return flows or through the atmosphere. These can be lethal to fish.

Clearly, the problems which pollution pose for sport fishing form only a small part of the greater problem of water pollution. Treatment of this issue is beyond the scope of the present study, other than to note that it is now receiving extensive Federal and State attention following such major pieces of legislation as the 1965 Water Quality Act (6), the Water Resources Planning Act, which was also passed in 1965 (7), and the Clean Rivers Restoration bill of 1966 (8).

A problem which looms almost as large as pollution for sport fisheries is that of flood control and irrigation projects. The dams which are constructed as part of these projects often bar migration of fish, although "fish ladders" can be built to allow certain types of fish, such as salmon, to migrate.

To the fisherman, the dams reduce the attractiveness of the sport by substituting a man-made environment for the natural environment. Stream fishing is generally considered as the "highest form of the art". However, the limitations of stream fishing such as the difficulty of movement to and through such waters, are such that only a limited number of fishermen can participate in a given length of stream. A balance between reservoir fishing and stream fishing is therefore desirable, especially if there is a considerable local demand for fishing. Good management practice calls for conserving some streams, which possess outstanding qualities, as fishing streams.

Another problem is the considerable variation in the capacity of inland fresh waters to produce fish. In addition to the quantity of water available one must consider such variables as the presence of essential chemical nutrients, dissolved gases, and the physical characteristics of the water body. These include depth, turbidity and annual water temperature cycle. The pressure of toxic pollutants and competition between fish and other living organisms for food and space also affect the fish-producing capacity of inland fresh waters (9).

The temperature of a lake, for example, usually decreases with increasing depth. This temperature gradient has a direct effect on the ability of a lake to support various species of fish. In a study made in Maine by the United States Geological Survey in 1953, soundings

for depth and temperature reading were taken at different points in many lakes. The kinds of fish in each lake were then classified.

In shallow water bodies, such as the 20 foot deep Pocasset Lake, the minimum water temperature was 68 degrees Fahrenheit. This lake contained warm-water fish, such as bass, perch, chain pickerel, sunfish and minnows. Past stockings with brown trout, a cold water fish, had been unsuccessful. In contrast, Wilson Pond, which reaches a maximum depth of 88 feet and a minimum water temperature of 45 degrees Fahrenheit, readily supported salmon, brook and lake trout, all of which are cold-water fish. The misdirected attempts to stock Pocasset with cold-water game fish indicate the importance of careful surveys prior to making any fish stocking program.

C. THE DEVELOPMENT OF STRIP PITS FOR FISHING IN KANSAS (10)

An area of more than 70 square miles of southeast Kansas has been extensively mined for coal since the middle of the Nineteenth Century. The legacy of the mining is a region of flooded strip pits and devastated country-side, where the majority of the coal mines have now been abandoned.

In the early 1960's, Kansas conservationist groups, in co-operation with the Kansas Forestry, Fish and Game Commission, began work on restoring some 10,000 acres of abandoned strip mines to recreational use. Many of the flooded pits were 30 to 40 feet deep and so afforded an excellent habitat for game fish. It was found that such fish as drum, walleye, crappie, channel cat, blue gill, bullheads and largemouth bass thrived in the environment of the pits.

It has been found that fishing in the pits has the great advantage of not being spoilt by heavy rains. This area of Kansas experiences a mean annual rainfall of over 40 inches. The heavy rainfall causes muddied lakes and swollen streams, spoiling the fishing in them. The pits, however, are essentially stagnant and so are unaffected by the rainfall.

The Kansas Forestry, Fish and Game Commission had built 28 miles of roadway and over 60 miles of walkways through the 6,000 acres of strip pit under their control by mid-1966. The Director of the Commission has stated that the chief difficulty in developing the pit area for recreation lies in the cost of constructing such access roads through an area which is otherwise almost wholly inaccessible.

In order to encourage multiple use of the strip pit area, facilities for camping and boating have been constructed. These include parking areas, boat-launching ramps, toilets and picnic tables. In 1966,

the Kansas Forestry, Fish and Game Commission was establishing food plots throughout the strip pit area to supply game animals and birds with year-round food.

D. THE VALUE OF FISHING FOR COST-BENEFIT ANALYSIS

A useful section of ORRRC Report 24, entitled Economic Studies of Outdoor Recreation, is devoted to this topic (11). ORRRC Study Report 24 adopts the method used by the Fish and Wildlife Service, which assumes that the public benefits from fishing represent some amount related to the expenditures made on the sport by its participants. They set the following values, which are "based primarily on judgment":

<u>Activity</u>	<u>Range of Value per Recreational Day of Fishing</u>
Reservoir fishing	\$0.50 to \$1.50
Warm water fishing in a stream or lake	\$0.50 to \$1.50
Cold water and bass fishing in a stream or lake	\$1.00 to \$3.00

Source: ORRRC Report 24, Economic Studies of Outdoor Recreation, p. 57.

Another important source concerning the problems of assigning monetary values to sport fishing for purposes of cost-benefit analysis is James A. Crutchfield's article "Valuation of Fishery Resources." This appeared in Land Economics, Vol. XXXVIII, No. 2, May 1962, on pages 145 through 154. A review of this article will be found in Part II of this study, under the section on benefit-cost analysis.

E. FACTORS AFFECTING PARTICIPATION IN FISHING

A valuable section on this topic appears in the National Recreation Survey, which is ORRRC Study Report 19. This study found that participation rates in fishing were highest in the South in 1960. The lowest participation rates were recorded in the Northeast. It was found that the level of participation varied with the season of the year. In the West, for example, participation rates rose as high as in the South during the fall months.

"Females fish about one-third as frequently as males. However, this ratio increases to approximately one-half for older females. . . As one moves from the large city to rural areas, the fishing rate increases, reaching a peak of 3 occasions per person among rural nonfarm

residents, a rate three times that for cities over 1 million population. . . Thus, participation increases with proximity to the resource, as the latter is measured by urbanization." (12)

F. AN IMPORTANT STATISTICAL SOURCE ON FISHING

Marion Clawson's Statistics on Outdoor Recreation, which was published by Resources for the Future, Inc., in April 1958, contains an excellent section on fishing. This is to be found in the chapter entitled "Hunting and Fishing as a Type of Outdoor Recreation," on pages 93 through 103. Here Clawson discusses the usefulness of available data on sales of fishing licenses, their cost and the relationship of resident to nonresident license sales. Time series on these subjects are presented at the national level for fiscal years 1923 through 1956.

In the Appendix Tables found on pages 142 through 151 of Statistics on Outdoor Recreation, details of resident and nonresident license sales, and the fees paid by anglers for licenses, are presented on a state-by-state basis for the years 1941 through 1956. These data could form the basis for a statistical investigation of trends in fishing.

CHAPTER 15 -- REFERENCES

1. United States Department of the Interior, National Survey of Fishing and Hunting, Washington, D.C., 1960, p. 43.
2. Ibid., p. 43.
3. Ibid., p. 26.
4. Ibid., p. 28.
5. Bureau of Sport Fisheries and Wildlife, U. S. Department of the Interior, Sport Fishing - Today and Tomorrow, ORRRC Study Report 7, Washington, D. C., 1962, p.11.
6. Public Law 89-234.
7. Public Law 89-80. This law established the river basin commissions program.
8. This bill was transmitted to The Congress on February 25, 1966.
9. This section is based largely on Chapter 5 of Sport Fishing-Today and Tomorrow.
10. This section is based on Walt Wiggins, "Strip Pit Campgrounds," Camping Journal, September-October, 1966, pp. 24-25.
11. Outdoor Recreation Resources Review Commission, Economic Studies of Outdoor Recreation, ORRRC Study Report 24, Washington, D.C., 1962, pp. 52-53 and 57-58.
12. Abbott L. Ferriss et.al., National Recreation Survey, ORRRC Study Report 19, Washington, D.C., 1962, p. 28.

CHAPTER 16

CAMPING IN THE UNITED STATES

A. INTRODUCTION

The Outdoor Recreation Resources Review Commission found that in 1960 the American Public participated in camping on 60 million occasions. They predicted that this figure will more than double by the year 1976 and will increase more than four times by the year 2000. Many people are camping today who never camped before.

The largest number of U. S. campgrounds are located in the West. Almost 60% of the U. S. total of 6,612 campgrounds were situated in this region in 1960. These Western facilities contained 52% of the Nation's total public campground capacity of 756,000 people. The South contained 15% of the total number of U. S. campgrounds in 1960 and had 14% of the total campground capacity; the North Central region had 21% of the total number of campgrounds and 20% of the total capacity. For the same year the Northeast claimed a mere 4% of the total number of U. S. campgrounds, but had 13% of the national campground capacity. (1)

The uneven geographical distribution of campgrounds is paralleled by imbalances in the geographical distribution of other outdoor recreation resources. The comment of the Recreation Resources Commission on this general problem applies equally to camping. The Commission stated that "the most promising means of bringing about a balance is management policy, which in many cases may be as much a determinant of supply as acres. This means management in the very broad sense. It includes legislative and administrative decisions as to how public resources should be used and decisions on private investment". (2)

There would seem to be a strong case for encouraging multiple use of land, especially land in private ownership, such as the timberlands of the Northeast U. S. A. New York State presents an example of intelligent multiple use of public land. Here the New York State Department of Conservation is establishing a number of new campgrounds in the Catskills Forest Preserve, a 239,085 acre area of the State which is to be preserved "forever wild" under an amendment to the New York State Constitution. The concentration of the new sites in an area within four hours drive of New York City is particularly notable as an example of good planning. (3)

B. LEVELS OF USAGE

Throughout the U. S. A., Federal agencies reported the highest percentage of campgrounds operating at or above capacity in 1960. State agencies were generally a close second, while local agencies usually reported that their areas were experiencing only light or moderate use. Camping pressures were high among designated parks. Three-fourths of the national parks and two-thirds of the State parks reported use at or above capacity. Less than half of the local parks reported comparable pressure on their facilities. Forested campgrounds experienced the heaviest pressure of any type of camp area. (4)

Regionally, the highest proportion of areas under heavy pressure in 1960 was in the Northeast and the West. The North Central Region reported 294 areas under heavy pressure, about the same figure as in the West. In the North Central Region, however, some 250 areas were operating at less than capacity, compared with 165 in the West. The most populous Pacific States, namely Washington, Oregon and California, reported heavier user pressure on their campgrounds than any other census division. (5)

C. WHO ARE THE CAMPERS?

In 1963 the consumer magazine Better Camping made a study of its readers. (6) The first 4,720 replies received to a questionnaire, which was inserted in every copy of its May-June 1963 issue (circulation 35,000), were tabulated. We believe that the results of this survey are fairly characteristic of "the typical American camper". The survey achieved good geographical coverage, with returns coming from all states except Hawaii. However, there is a likelihood of bias in the results since the camper would need to have above average interest in this activity to be motivated into buying a consumer magazine exclusively devoted to camping.

The findings of the Better Camping survey were:

- | | | | |
|-----|-----------------|-----------------------------|---------------------------------|
| (1) | Family incomes: | \$5,001 to \$8,000 | 36.7% of all respondents |
| | | \$8,001 to \$10,000 | 26.3% of all respondents |
| | | <u>\$10,001 to \$15,000</u> | <u>19.5% of all respondents</u> |

Total accounted for 82.5% of all respondents

- (2) Skilled workers and professional people accounted for 3,121 of the 4,720 respondents, "with a little over half in the latter category." (7)
- (3) Most campers are urban dwellers - only 21.4% of those responding lived in rural areas. 25.8% of all respondents lived in

cities of 50,000 to 100,000 population; while 22.5% lived in cities of 100,000 or over.

- (4) 53.2% of all respondents spent between \$50 and \$199 per trip, while 32.1% spent between \$200 and \$500.
- (5) In terms of distance traveled on their annual vacation trip, only 1.7% of all respondents traveled less than 100 miles; 5.2% traveled 100 to 199 miles; 16.5% traveled from 200 to 499 miles; 22.5% traveled 500 to 1,000 miles, while a surprising 54% traveled 1,000 miles or more.
- (6) The distribution of lengths of camping vacations was as follows:
- | | |
|--------------------------|---------------------------------|
| 7 days or less | 17.3% of all respondents |
| 8 to 14 days | 45.7% of all respondents |
| 15 to 21 days | 26.2% of all respondents |
| <u>More than 21 days</u> | <u>10.8% of all respondents</u> |
| Total accounted for | 100.0% of all respondents |
- (7) Some 1,444 respondents took between four and six weekend camping trips per year, while 813 respondents took between ten and twelve weekend camping trips per year.
- (8) 37% of the 4,720 respondents were trailer campers.

A study made by the Coleman Company entitled A Nation Outdoors reported that a majority of all campers live in suburban locations. (8) We consider this factor to be largely correlated with income, since the suburbs of most American cities are made up of the most expensive houses in those cities and consequently will be purchased by persons with above-average incomes. It concluded that "the camper's interest in this form of outdoor recreation increases steadily after the family income reaches \$7,500 per year, tapering off slightly after the \$10,000 level is attained." (9) It would seem that income and occupation are the most significant variables in explaining propensity to camp. This finding is corroborated by a study made in Wisconsin in 1959. (10)

The Wisconsin study, which was based on personal interviews with 385 camper groups, indicated the distribution of family incomes shown in Table 16-1, on the following page.

TABLE 16-1

ANNUAL FAMILY INCOME OF WISCONSIN CAMPERS INTERVIEWED IN 1959

Sample Size = 385 persons

<u>Income</u>	<u>Percent of Sample</u>
\$4,999 and under	11.4%
\$5,000 to \$9,999	72.7%
\$10,000 to \$14,999	10.7%
\$15,000 and above	5.0%
No answer received	<u>0.2%</u>
Total	100.0%

Source: Camping in State Parks and Forests in Wisconsin, by I. V. Fine and E.E. Werner, p. 8.

The Wisconsin study also found that the majority of the campers interviewed were in the categories of professional and technical workers, non-farm managers, officials and proprietors (45.2% of those sampled) or in the category of skilled workers (35.9% of those sampled). It comments, "the typical camper family has a relatively high income. This would seem to be in direct conflict with the assumption that camping is the 'poor man's vacation activity'." (11)

The Coleman Company study found that "most campers are young and married, the majority between 25 and 44. As family formations start at an earlier age, there is a pronounced trend toward camping activity among these younger couples." (12) Table 16-2, which shows the age distribution of campers in Wisconsin, corroborates the findings of the Coleman Company.

TABLE 16-2

AGE DISTRIBUTION OF CAMPERS INTERVIEWED IN WISCONSIN IN 1959

Sample Size = 1,713 persons

<u>Age</u>	<u>Percent of Sample</u>
Under 5 years	9.3
5 to 14	32.0
15 to 24	11.1
25 to 34	11.4
35 to 44	20.7
45 to 54	11.2
55 to 64	3.6
65 and older	<u>0.7</u>
Total	100.0%

Camping in State Parks and Forests in Wisconsin, by I. V. Fine and E. E. Werner, p. 6.

Another significant finding of the Wisconsin study of campers in that state was that most of the campers interviewed lived either in or near to Wisconsin--some 39.8% of the 385 parties interviewed lived in Wisconsin, while a further 37.2% lived in Illinois. The typical camper party consisted of 4.4 people, while the average length of stay was 7.8 days per party. The average expenditure per camper party per trip was \$79.89 or \$176.25 if equipment purchased in Wisconsin is included.

The Wisconsin study brought out the salient fact that the equipment salesman and manufacturer receives a larger share of the camper's dollar than does the campsite owner and the local grocery store. It was estimated that some \$1,680,000 was spent by campers while actually on their trips. In contrast some \$2,026,000 was spent on equipment for camping and boating (14% of all the campers interviewed had brought boats), purchased within Wisconsin. (13)

Since the interviewers stressed to the respondents that they should only include equipment purchased within the State of Wisconsin, and since some 60.2% of the 385 parties interviewed were from out-of-state, one can only conclude the economic benefits of camping fall heavily on those engaged in supplying the camper with equipment. In effect, it is the urban camp shop rather than the campsite operator in the Ozarks whose absolute financial gain is greatest. However, this leaves open the question of relative financial gain.

D. FACTORS AFFECTING PARTICIPATION IN CAMPING (14)

The major factors leading to increased participation in camping are the increase of leisure time and rising personal incomes. It is estimated that by 1976 the average workweek could be only 33 to 36 hours in length, as contrasted with 37 to 40 hours in 1960. By the year 2000 it may be down to between 30 and 32 hours. Much of this increase in leisure time might be given to employees in the form of increased vacation periods. The growth of camping will be directly proportional to the number of persons with annual family incomes in the \$5,000 to \$14,999 group who have skilled, business managerial, or professional jobs. This socio-economic group has historically shown the greatest propensity to camp.

A second factor affecting camping demand is the increasing appeal of camping to the family group. To many families it is a form

of recreation which both parents and children can enjoy. The Wisconsin study, mentioned above, reported that "many respondents . . . chose camping for a vacation activity not because it would provide a particularly cheap form of vacation, but rather because this was the type of activity they preferred with young growing children." (15)

Camping enables people to "get away from civilization." It offers an opportunity to "rough it" during their vacation, which may have an appeal to an increasingly urbanized society. This point will be discussed later. Increased interest in travel and greater mobility of the population have caused the demand for camping to grow considerably. Due to the Interstate Highway Program, time-distances have been greatly reduced and remote areas, ideal for camping, are becoming more accessible. This is especially true for weekend camping within a two hundred mile radius of most major cities.

Finally, the cheapness of camping attracts many. At a time when hotel and motel prices are rising sharply, and when the trend in the hotel/motel industry is towards greater luxury and more elaborate services (16), camping offers low-price accommodations for large families and those who wish to use their vacation budget for travel rather than accommodations.

This last point is important, since camping is not, on the whole, a "poor man's sport". There seems to be a substantial number of campers who take expensive vacations in which the major cost item is transportation. The immense popularity of the Cinnamon Bay campground on the island of Saint John, one of the U. S. Virgin Islands, is a case in point.

Most of the users of the Saint John campground have flown from northern cities such as Chicago, Boston and New York, to Puerto Rico and then flown on to Saint Thomas, from whence they have taken ground and sea transportation to Saint John. (17) The cost of getting to and from Saint John will be a minimum of \$150 per camper in most cases. Research into this apparently increasing propensity to spend on travel and decreasing propensity to spend on accommodations would be of value in formulating regional policies on the provision of campsites and related facilities.

The researcher who is interested in further analysis of the factors which influence participating in camping should consult pages 31 through 34 of the National Recreation Survey. This is Outdoor Recreation Resources Review Commission Study Report 19. (18) Many of the points made in those pages dovetail with the findings of less accessible reports which have been summarized in this chapter.

E. TENT CAMPING VERSUS TRAILER CAMPING

There are many indications that tent camping is on the decline and is being supplanted by "camping on wheels". Camping on wheels includes the use of both small house trailers and tents mounted on trailers. The tent which folds up into a small trailer seems to be enjoying more and more popularity. However, we have not been able to discover any study which adequately documents these trends.

The New York Times recently carried a report on camping in Glacier National Park, which stated that 60% of all camping parties arriving during the 1966 season, through the end of June 1966, were "camping on wheels". Park rangers reported that this percentage was greater than ever before.⁽¹⁹⁾ The Wisconsin study found that in 1959 some 58.2% of the 385 camping parties interviewed were using tents. 29.4% were using trailers, while some 8.5% were using tents mounted on trailers. A further 3.9% were using unclassified means of shelter. "The interviewers reported that almost without exception those campers who were using trailers planned to camp again next year."⁽²⁰⁾

It is important that research be done into the apparent trend away from tent camping, since the trailer camper requires somewhat different facilities from the tent camper. These include such things as a firm hardstanding and an electric power hitch. The trailer camper also has need of good highway access to the campground. In contrast, the tent camper, who may well be moving his equipment by backpack or canoe, is likely to prefer to use the "wilderness" type of campground. Since such a study will probably be comparative, it may be wise to do at least part of it in a state where a good "benchmark" study already exists. Wisconsin is one such state and further investigation should reveal others.

F. THE ROLES OF THE PUBLIC AND PRIVATE CAMPGROUND (21)

1. Growth in the Demand for Campsites

These two types of campgrounds are usually complimentary. Public campgrounds tend to be located in more scenically-attractive surroundings, while private campgrounds tend to be better maintained and to offer the camper more space and privacy. The supply of public campgrounds is generally inadequate to meet demand and it seems likely that this will continue to be the case. Consequently, private campsites have an important role in absorbing this excess demand.

When the National Park Service began work on Mission-66 in the mid-1950's, the nation's parks were catering to about 50 million visitors and campers each year. Facilities were then adequate for about 25 million visitors annually. The ten-year program was designed

to give the park system an overall capacity of 80 million visitors and campers by 1966. However, in 1965 some 121 million visitors used the national parks.

An example of the impact of this wholly unexpected growth in campers is Glacier National Park in Montana. Here a 10-year, \$8 million campground improvement program has added over 500 new campsites to raise Glacier's campsite total to 1,248. Notwithstanding these additions, it has been necessary to impose a camping limit of 14 days during July and August in an effort to give more people the opportunity of using these sites.(22)

Table 16-3, which shows the number of camper days spent in the State parks and forests of Wisconsin during the 1950's, provides documentation at the state level of the rapidly growing popularity of camping.

TABLE 16-3

CAMPER DAYS SPENT IN WISCONSIN STATE PARKS AND FORESTS, 1950-59

<u>Year</u>	<u>State Parks</u>	<u>State Forests</u>
1950	143,277	9,515
1952	149,542	21,963
1954	175,585	29,846
1956	262,342	43,650
1958	413,451	Data not comparable with earlier series

Source: Wisconsin Department of Conservation.

2. The Role of the Private Campground (23)

The private campground, which seems to have gained impetus from the inability of many public campgrounds to meet the heavy demand thrust upon them, have developed an identity of their own. To a large degree they have also created their own market among a group of campers who prefer them over public campgrounds. This group of campers is prepared to pay for such features as advance reservations (in contrast to the inflexible "first come, first served" ruling of the National Park Service), special trailer facilities, modern conveniences, and a well-planned recreation and entertainment fare.

There are indications that the camper is demanding more elaborate facilities and greater creature comforts. Pursuit of the "wild outdoors" seems to be of limited appeal. The Wisconsin interview teams found almost universal overcrowding at the campsites which they visited. However, "most surprising to the interviewers, in the light of apparent crowding, was the fact that only one-third of the respondents listed this

as a needed improvement. There seemed to be much greater concern with sanitation, utilities, and services that one assumes the camper is willing to sacrifice in his attempt to get closer to nature. Perhaps, this is due to standards that the higher income levels tend to develop."(24)

If the typical camper really is searching for more elaborate facilities, a fact which can only be determined through further research, then the private campground is probably the most appropriate vehicle for supplying them. The public campgrounds should then concentrate on the requirements of those campers who are satisfied with relatively primitive conditions or are satisfied with relatively simple facilities in areas of great natural beauty.

It would seem, therefore, that there is a role for both the public and the private campground to play in any given recreational area. These roles are separate and distinct. Consequently, it seems wise to allow private enterprise to undertake developments parallel to the establishment of a public campground system in the Economic Development Regions.

G. CONCLUSIONS

1. Comprehensive information concerning campground development and management is presently lacking. Work in this direction is being advanced to some degree by bodies such as the Soil Conservation Society of America, the American Camping Association, the Department of Agriculture and the Eastern Conference on Camping Areas.

2. There seems to be a lack of State campground codes for private campgrounds. In several states which have codes, such as New Jersey, compliance is voluntary. Compulsory compliance would protect both the industry and the camper.

3. The existence of state or regional development plans for campgrounds, combined with a measure of state control over the establishment of private campgrounds, would do much to alleviate the problem of local oversupply and severe competition in heavily-developed tourist areas such as New England.

4. Greater efforts should be made to provide state or ORED-sponsored information on market conditions, financial feasibility and sound management practices, to persons wishing to establish private campgrounds. This could include assistance with estimating development costs, operating expenses and projected income. It might also include a loans program for campground development.

H. BIBLIOGRAPHIES AND OTHER MATERIAL ON CAMPING

Two excellent bibliographies on camping are:

Family Camping Bibliography, American Camping Association, Inc., Bradford Woods, Martinsville, Indiana, No publication date given, Copyrighted 1963 (\$1.00).

and

Pages 60-62 of Land, Water, Recreation, Report No. 7 of the New Hampshire State Planning Project, The Privately-Owner Campgrounds of New Hampshire, New Hampshire State Planning Department, Concord, N.H., March 1965 (Free).

Two useful publications on how to set up campgrounds are:

Guidelines for the Development and Operation of Family Campgrounds and Sites, American Camping Association - Family Camping Federation, Bradford Woods, Martinsville, Indiana. No publication date given (Free).

and

Family Camping Manual, George T. Wilson, American Institute of Park Executives, Inc., Oglebay Park, Wheeling, West Virginia, November 1964 (\$2.00).

We are informed, in a personal letter from the Editor of Better Camping, dated August 23, 1966, that this magazine is making a new survey of the socio-economic background and camping habits of its readership. This will probably be published in Better Camping late in 1966. It will permit an interesting comparison with that magazine's 1963 survey of its readership.

A few data on camper use of the National Forests are available in Marion Clawson's Statistics on Outdoor Recreation, published by Resources for the Future, Inc., in 1958. On page 36 of this report data will be found on the number of camp and picnic areas available in National Forests in 1940, 1946, 1950 and 1955. Data on the capacity of these areas are given for the same years. Page 42 of this report contains figures on the total number of recreational visits to the National Forest system for which camping was the primary purpose.

CHAPTER 16 - REFERENCES

1. Outdoor Recreation Resources Review Commission Staff, Public Outdoor Recreation Areas - Acreage, Use, Potential, 1962, ORRRC Study Report 1, p. 27.
2. Recreation Resources Commission, Outdoor Recreation for America, Washington, D. C., 1962, p. 49. A full discussion of the difficulties presented by the imbalance of supply and demand in camping and other forms of outdoor recreation is given in Hugh A. Johnson's paper, Private Enterprise in the Development of Outdoor Recreation, delivered as part of the Proceedings of the Committee on the Economics of Water Resource Development, at Reno, Nevada, in August 1962. This paper and Richard J. McConnen's discussion of it, is reviewed in Part II of this study, in the section relating to multiple use of land and water.
3. Information partially taken from "The 'Other' Catskills, Where Nature Stars," New York Times, August 14, 1966.
4. Outdoor Recreation Resources Review Commission Staff, Public Outdoor Recreation Areas - Acreage, Use, Potential, p. 56.
5. Ibid., p. 56.
6. Better Camping, November-December 1963, p. 40.
7. Ibid.
8. A Nation Outdoors is currently out of print. However, Xerox copies of parts of this study may be obtained from the Coleman Company, Inc., General Offices, Wichita, Kansas 67201.
9. A Nation Outdoors, p. 3.
10. I. V. Fine and E. E. Werner, Camping in State Parks and Forests in Wisconsin, Wisconsin Vacation-Recreation Papers, University of Wisconsin, Madison, Wisconsin, Vol. 1, No. 3, 1960.
11. Ibid., p. 8.
12. A Nation Outdoors, p. 3.
13. Camping in State Parks and Forests in Wisconsin, pp. 8-10.
14. This section is based on the keynote address delivered by William R. Failor of the Bureau of Outdoor Recreation, to the 1965 Eastern Conference on Camping Areas. It is reprinted in Selected Proceedings of the First Annual Eastern Conference on Camping Areas, pp. 2-7.

CHAPTER 16 - REFERENCES, Cont'd

15. I. V. Fine and E. E. Werner, Camping in State Parks and Forests in Wisconsin, p. 8.
16. See, for example, Fred W. Eckert's Economic Factors and Case Studies in Hotel and Motel Valuation, American Institute of Real Estate Appraisers, 36 South Wabash Avenue, Chicago 3, Illinois, or the annual publications of Harris, Kerr, Forster and Company entitled Trends in the Hotel-Motel Business.
17. Information from personal conversations of the author with Virgin Islands National Park personnel and fellow campers on Saint John, December 1963 and December 1964-January 1965.
18. Abbott L. Ferriss, et al., National Recreation Survey, ORRRC Study Report 19, Washington, D. C., 1962. Available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.
19. "Upgrading Glacier Park," New York Times, June 26, 1966.
20. I. V. Fine and E. E. Werner, Camping in State Parks and Forests in Wisconsin, p. 10.
21. This section is partially based on the New Hampshire State Planning Project Report No. 7, The Privately-Owned Campgrounds of New Hampshire, March 1965, Concord, New Hampshire.
22. "Upgrading Glacier Park," New York Times, June 26, 1966.
23. Some useful ideas on the role of private enterprise are given in Hugh A. Johnson's paper, Private Enterprise in the Development of Outdoor Recreation, cited in reference number 2.
24. I. V. Fine and E. E. Werner, Camping in State Parks and Forests in Wisconsin, p. 11.
25. These conclusions are drawn, in outline form, from The Privately-Owned Campgrounds of New Hampshire. While the conclusions related specifically to the New Hampshire situation, the author of this chapter believes that these points present a good summary of issues raised elsewhere in the literature surveyed.

CHAPTER 17

DATA SOURCES FOR TOURISM AND RECREATION

Since the location and completeness of data pertaining to particular types of outdoor recreation have been outlined in Chapters 12 through 16, this Chapter will be restricted to a brief outline of three general data sources. Although the latest data presented in Marion Clawson's Statistics on Outdoor Recreation are for 1956, this book remains one of the most useful sources available. Published by Resources for the Future, Inc., in April 1958, Statistics on Outdoor Recreation is now out of print. We were informed by Resources for the Future that it is not intending to reprint this volume in its present form. Fortunately, it appears to be available in many municipal and university libraries.

Clawson's Statistics covers ten major topics. These include recreational use of the national park system, the national forests, and the national wildlife refuges. Three sections are devoted to reservoir-oriented recreation, including recreational use of reservoirs built by the Corps of Engineers, the Bureau of Reclamation and the Tennessee Valley Authority. A very useful section is devoted to the topic of boat sales and the sales of outboard motors. This section considers these sales data as an index of outdoor recreation. Two further sections discuss recreation in state parks and recreation in municipal and county parks. The tenth topic covered is hunting and fishing as types of outdoor recreation.

On each of these topics, sets of national time series are presented, usually running from the 1930's or 1940's to 1956, to illustrate trends and other major developments. Frequently, the data are mapped to facilitate visual analysis of regional distributions. Marion Clawson has written a commentary on the data presented and the topics which they illustrate.

Pages 106 through 155 contain detailed tabulations of data related to the ten topics outlined above. Most of these data are presented on a state-by-state basis. The detailed data contained in these Appendix sections of Statistics on Outdoor Recreation are for the period 1940 through 1956 in most cases.

A valuable survey of data sources and their quality appeared in Marion Clawson's article "Statistical Data Available for Economic Research on Certain Types of Recreation," which was published in the Journal of the American Statistical Association for March 1959, on pages 281 through 309. In the early part of this paper, Clawson discusses a number of definitional problems in the field of recreation. He shows how definitional inconsistencies can affect the reliability of recreational data.

Clawson makes the significant points that "the available statistics were not collected for the purpose of social science research; they were often obtained as an incident to administrative actions, or to guide them, or for their current news value. It should not, therefore, be surprising that the available data are often unsatisfactory for social science analysis. . . Such statistics as are collected are not fully summarized (and) . . . even such data as are available have been subjected to comparatively little social science analysis." (p. 292) In the latter part of Clawson's paper, many data sources on outdoor recreation and organized sports are listed and discussed in detail.

The National Recreation Survey, ORRRC Study Report 19, published in Washington, D. C., in 1962, contains a wealth of data on participation rates in 17 different types of recreation. These data were collected by the Bureau of the Census for the ORRRC, and comprise a nationwide survey of the outdoor recreational habits and preferences of the American people aged 12 or over. They were derived from four separate samples, each involving about 4,000 interviews.

The 273 pages of tables in the National Recreation Survey give participation in the 17 types of recreational activity, cross-classified by age, sex, race, family income level, region, and a variety of related factors. Many tables are used to document general preferences for certain types of recreational activity, vacation preferences, weekend preferences, and day's outing preferences.

The data are somewhat coarse, which is their main disadvantage. For example, the regional data in the National Recreation Survey are presented on a scheme which divides the U.S.A. into four regions--Northeast, North Central, South, and West. Data are not presented on a state-by-state basis.

Despite this limitation, the Survey is a basic document for research in recreation/tourism.

BIBLIOGRAPHICAL SOURCES ON TOURISM AND RECREATION

A. THE WORK OF THE OUTDOOR RECREATION RESOURCES REVIEW COMMISSION

Without doubt, the most complete bibliography on record is contained in the 27 volumes of the Outdoor Recreation Resources Review Commission. This Commission was created by an Act of Congress in 1958. Its monumental survey of the entire field of recreation and tourism was published in 1962. The 27-volume set is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, for less than twenty-five dollars. It can also be purchased on a volume-by-volume basis. At the time of writing (August 1966), all 27 volumes are currently in print.

ORRRC Study Report 27 is entitled Outdoor Recreation Literature: A Survey. This report contains a number of important bibliographical appendices. Appendix I is a selected bibliography on outdoor recreation and related topics. Appendix II is a topical outline of the major study areas of the Outdoor Recreation Resources Review Study Commission. Appendix III is a bibliography on leisure, with special reference to outdoor recreation. Appendix IV is a bibliography on county, special district, intergovernmental and related problems, in relation to outdoor recreation resources and planning. The four appendices fill some 70 pages.

In many cases, the footnotes in the individual ORRRC reports form excellent "bibliographies." For example, the most complete listing of references on hunting which this author has encountered is contained in the footnotes of ORRRC Study Report 6, Hunting in the United States - Its Present and Future Role. Likewise, ORRRC Study Report 7, Sport Fishing - Today and Tomorrow, contains a first-rate bibliography on this topic in its references and citations.

B. THE CRAMPON BIBLIOGRAPHY

Another notable bibliography is L. J. Crampon's A Bibliography of Surveys and Statistical Reports on Tourism and the Visitor Industry of the United States. This was published by the Bureau of Business Research (of which Mr. Crampon was then Director) of the University of Colorado at Boulder, Colorado, in August 1960.

This 37-page bibliography covers material published on or after January 1, 1950 through to 1960. Twelve pages of this bibliography are devoted to general materials published by the Federal Government and various private publishing companies. The most important section of Crampon's bibliography is Part II which covers states and regions (such as the U.S. Virgin Islands and New England). Part II occupies twenty-five pages, forming the most complete state-by-state bibliography of travel and tourism known to this author.

Unfortunately, Crampon's bibliography is currently out of print. However, copies are obtainable from many university and public libraries.

C. IMPORTANT REGIONAL BIBLIOGRAPHIES

In the course of this study, we encountered a number of important regional bibliographies. Their nature and location are outlined below. This listing is in no way intended to be comprehensive, since the geographical coverage of the material reviewed was uneven, despite intensive efforts to prevent imbalance.

1. Vermont

A good general bibliography is given on pp. 145-147 of The Tourist and Recreation Industry in Vermont, Vermont Development Department, Montpelier, Vermont, October 1963 (\$1.00).

2. New Hampshire

A somewhat specialized bibliography, oriented toward water resources, is given on pp. 212-216 of Land, Water, Recreation Report No. 10 of the New Hampshire State Planning Project, New Hampshire State Planning Department, Concord, N. H., September 1965 (Free).

3. Massachusetts and New England

A selected five-page bibliography on both the State and the region is given as Appendix B2 of Measurements of Tourism in Massachusetts, Supplements and Appendices, Bresnick Company, 340 Boylston Street, Boston, Massachusetts, December 1965 (No price given).

A two-page bibliography of source materials used for a study of tourism in Western Massachusetts is given on pp. 156-157 of Recreation-Vacation-Tourism in Northern Berkshire - Massachusetts, Technical

Planning Associates, 37 Whitney Avenue, New Haven, Connecticut, April 1964 (No price given).

4. North Dakota

A combined local and general travel and tourism bibliography is given on pp. 227-233 of A Study of the Vacation and Recreation Industry in North Dakota to Determine Opportunities for Small Business, North Dakota Economic Development Commission, State Capitol, Bismarck, North Dakota, April 1963 (\$2.00).

5. Wisconsin

While this series is in no sense a bibliography, a list of the excellent Wisconsin Vacation-Recreation Papers can be obtained from the Bureau of Business Research and Service, School of Commerce, University of Wisconsin, Madison, Wisconsin, 53706. All are free. About twenty papers were written on many aspects of Wisconsin's travel and tourist industry, in addition to recreation in Wisconsin. This research was supported by state funds appropriated in 1959.

6. Oklahoma

A bibliography on recreational resources and tourist potentials in Oklahoma, with some references to the Oklahoma Indians, is given on pp. 173-179 of Eastern and South Central Oklahoma Recreation and Tourism Study, Volume 2, Bureau of Indian Affairs, Muskogee Area Office, Muskogee, Oklahoma, 74401, April 1965 (No price given).

D. BIBLIOGRAPHIES OF SPECIALIZED RECREATIONAL ACTIVITIES

1. Hunting and Fishing

The usefulness of the citations in ORRRC Study Report 6 (Hunting) and Study Report 7 (Fishing) has already been mentioned.

2. Camping

a. Family Camping Bibliography, American Camping Association, Inc., Bradford Woods, Martinsville, Indiana. No publication date given. Copyrighted 1963 (\$1.00).

b. Land, Water, Recreation, Report No. 7 of the New Hampshire State Planning Project, the Privately-owned Campgrounds of New Hampshire, New Hampshire State Planning Department, Concord, N. H., March 1965, pp. 60-62 (Free).

3. Skiing

A one-page bibliogrpahy on market information relevant to skiing is given in Appendix Page A-53 of The Skier Market in Northeast North America, (1965 Edition), Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., February 1965 (\$4.00).

PART II

BOOK REPORTS

BOOK REPORTS

PART II

The book and article reports in this section are generally arranged so that Part II can be used as a companion reader to accompany Part I. The reports are arranged by subject matter, in a scheme which is broadly parallel to that of Chapter 1 through 18. In this way, reference can readily be made to detailed examinations of material which is treated in a more general way in Part I.

The reports were included for two reasons: to give the researcher a better idea of whether a certain publication will contain the information which he is looking for, and to present a set of reasonably detailed case studies.

The book and article reports are arranged in Sections as follows:

<u>Section</u>	<u>Page</u>
1. <u>Definitions, Measurement and Economic Impact</u> -- Items relating to the definition of the tourist and the recreationer. Items concerning the measurement of tourist expenditures. Items relating to the economic impact of recreation/tourism on a regional or local economy.	205
2. <u>Factors Affecting Growth; Demand Prediction</u> -- Items describing those factors which affect the growth of recreation/tourism and the demand for recreational facilities. Items relating to the prediction of this demand.	231
3. <u>Promotion and Advertising</u> -- Items concerning the promotion and advertising of recreation/tourist regions. Items relating to the measurement of the effectiveness of promotion and advertising of tourism.	241
4. <u>Multiple Use</u> -- Items relating to the multiple use of land and water. Items describing the problems and potentials of multiple use in relation to private enterprise, and private lands.	251

Part II - (Continued)

<u>Section</u>	<u>Page</u>
5. <u>Cost - Benefit Analysis</u> -- Items relating to cost-benefit analysis as a whole and to specific problems within cost-benefit reason- ing. Items relating cost-benefit problems to re- creation.	257
6. <u>Feasibility Studies</u> -- Examples of feasibility studies.	269
7. <u>Specific Types of Outdoor Recreation</u> -- These items are arranged in the same order as Chapters 12 through 16.	277
8. <u>Data Sources and General Information</u> --	293

SECTION I

DEFINITIONS, MEASUREMENT AND ECONOMIC IMPACT

- Florida Development Commission. 1964 Tourist Study
- Charles E. Hinkson. Traveler Profiles - A Study of Summer Travel to Alaska during 1963 and 1964.
- Hendrick, P., Pfister, R. L., and Segal, M. Vacation Travel Business in New Hampshire - A Survey and Analysis.
- Vermont Development Department. The Tourist and Recreation Industry in Vermont.
- American Automobile Association. Profile of the American Tourist, 1960-61.
- American Automobile Association. Profile of the American Tourist, 1962-63.
- Hawaii Visitors Bureau. Annual Program and Research Report.
- Charles E. Silberman. "The Money Left Over for the Good Life".
- Robert S. Friedman. How States Find Out About Their Tourist Trade.
- John M. Rathmell. The Economic Impact of Recreational Travel on a Local Community.
- The Committee on Research Methods of the Western Council for Travel Research. Standards for Traveler Studies.
- Horace W. Harding. The Kansas Tourist Study-1952.
- Connecticut Development Commission. Survey of Out-of-State Motorists in Connecticut.
- Planning Survey Division, Nevada State Highway Department. Nevada Out-of-State Visitor Survey 1963.
- New Hampshire State Planning Project. Travel Habits of the Motorist in New Hampshire: Part 1 - Summer.
- Systems Analysis and Research Corporations. Economic Impact of Recreation, Vacation and Travel on New Hampshire.

Charles E. Hinkson. Traveler Profiles - A Study of Summer Travel to Alaska during 1963 and 1964. 1964. Dept. of Economic Development and Planning Box 1421, Juneau, Alaska. 57 pages. No price given.

Coverage: Reports the results of surveys conducted in 1963 and 1964 concerning the characteristics, spending patterns, and preferences of tourists. A tourist was defined as a "non-resident traveler to Alaska for pleasure or culture and for no other purpose."

Scope: For the 1963 survey a hand-out/mail back questionnaire was administered to travelers departing from Alaska by all modes of transport during a four-month summer period. Follow-up questionnaires were mailed to get additional information. In 1964 a one-week interview survey of departing travelers was made to obtain comparable data. Because of re-entry and re-exit of some of the parties, a certain amount of double-counting occurred during each survey. The sampling method is not indicated, although the author states that the 1964 interviews covered 20% of all people leaving Alaska.

The "tourist" definition was further broken down into "visitors," who came to see Alaskan residents, friends and relatives, and "vacationers," who come to see Alaska itself. It is questionable whether the tourist market can be neatly compartmentalized in this way, since it has been found in other parts of the U.S.A. that many tourists are both "visitors" and "vacationers." If such a distinction could be safely established it would be useful, since promotional advertising is primarily directed at "vacationers."

Data for "visitors" are presented showing their origins, average party size, average expenditure, and length of stay. These data are distributed by mode of transportation. Data for "vacationers" are presented in much greater detail. These tabulations include:

- Origin and destination, by mode of transport

- Length of pre-trip planning

- Information sources used in vacation planning, by mode of transport

- Length of total trip in relation to time in Alaska, by mode of transport

- Size and age composition of parties, by mode of transport

- Planning information desired for trip planning

- Average expenditure per vacation party and percentage breakdown of vacation budget

- Vacationer likes and suggestions

In addition, some data are presented on the non-resident business traveler, and the Alaskan departing for vacations of his own outside Alaska.

Florida Development Commission. 1964 Tourist Study. Tallahassee, Florida 32304: 1965, 16 pages. Free.

Coverage: Report of an annual survey of out-of-state overnight visitors, excluding business travelers and military personnel.

Scope: Each month a predetermined number of visitors entering Florida by all modes of transport is asked to complete brief, simple questionnaires. Automobile tourists completed these at nine Welcome Stations maintained on arterial highways at the state border. 381,667 groups registered at these stations in 1964. 25,000 air, bus and train passengers completed questionnaires en route into or out of Florida. The primary purpose of the study was to provide data needed by the promotional arm of the State government, and by various segments of the proprietary tourist business.

Survey data were expanded by means of traffic counts and carrier reports. The resulting estimates are reported in 17 tabulations, including the following:

Tourists entering Florida by month, and by mode of transportation.

Estimated average and total expenditure. Estimated by length of stay.

Budgetary distribution of the tourist dollar in Florida.

Origin and destination within Florida of tourists.

Group size and sex distribution by season and by mode of transport.

Purpose of trip.

Things looked forward to and enjoyed by tourists, by season and mode of transport.

Factors influencing decisions to visit Florida.

The usefulness of many of the tables, especially "purpose of trip," is impaired by the fact that multiple responses were permitted to certain questions. This resulted in some totals exceeding 100%.

Hendrick, P., Pfister, R. L., and Segal, M. Vacation Travel Business in New Hampshire - A Survey and Analysis. 1962. New Hampshire Department of Resources and Economic Development, State Offices, Concord, N. H. 194 pages. \$2.00. Four-page summaries are available free from the Small Business Administration, Washington 25, D.C.

Coverage: This report is divided into four major parts:

1. An inventory of all New Hampshire lodging places, and a comprehensive inventory of the vacation-travel serving businesses in eight "job centers" where 46% of the total lodging capacity of the state is located.
2. A survey of employment patterns and labor force characteristics in the New Hampshire lodging industry.
3. An overall view of vacation business in New Hampshire, with estimates of vacation-travel expenditures in 1958 and an assessment of their impact on the State's economy.
4. Summary and recommendations.

Scope: The data contained in parts 1. and 2. above were obtained through direct field interviews conducted during 1960 and 1961. The employment survey was based on a sample of 1,405 employees, structured in such a way as to minimize "size of establishment" bias. Employment data are presented in 34 tables, including the following breakdowns:

Total paid employment in lodging establishments, by class and size of establishment, and by county

Part-time paid employees and unpaid family workers

Indexes of monthly fluctuations in total paid employment of lodging places

Seasonal job holders (except students), resident and non-resident, by "reasons for work" and by job plans after the end of the seasonal job

Employment distribution of students on seasonal jobs by types of establishment and permanent residence.

1958 vacation-travel expenditures are estimated by two methods. The first, and admittedly more reliable, attributes to vacationers and pleasure travelers portions of the total receipts of those Census of Business Standard Industrial Classification (S.I.C.) categories which are thought to receive 80% of the tourist and recreation dollar. The problems with this method are that:

The selected S.I.C. categories (hotels, motels, eating places, auto services, amusement and recreation, etc.) may not receive exactly 80% of the dollars spent by recreation/travel/vacation consumers in New Hampshire.

The percentage allocations of portions of these receipts to the "tourist" account are based on estimates which, except in the case of lodging places, are not based on research. Lodging place operators estimated the proportion of their receipts attributable to recreation/travel/vacation as part of the inventory of lodging places.

After adding an "allowance for tips" to the attributed first receipts, the resulting 80% estimate of vacationer and traveler spending is divided by 0.8 to get a 100% estimate. An amount equal to 85% of the estimated expenditures by seasonal residents not already included is then added to get total vacation and travel spending. This latter adjustment, which amounts to some \$35 million, is based on a 1960 Wisconsin study, and implies an expenditure of \$1,400 annually per seasonal dwelling.

Up to this point the report has produced a \$123 million estimate, but this is adjusted upward in light of the second method of estimation, to \$135 million. After an examination of "various bits of relevant information" it is decided that subsequent rounds of spending generate enough additional income in New Hampshire to make the total impact of vacation-travel business \$220 million. This implies a multiplier of about 1.6, which has not been tested by research.

The second method involves adjusting U.S. average per capita receipts in selected S.I.C. categories downward (by Bureau of Labor Statistics "Standard of Living" data) to represent New Hampshire residents' own per capita spending--and then subtracting these figures from actual per capita New Hampshire receipts in these categories. The differences are attributed to "tourists". It is recognized that confidence in this method requires some heroic assumptions, and little faith is placed in it.

Vermont Development Department, Thompson, John M., Project Director.
The Tourist and Recreation Industry in Vermont. 1963. Vermont
Development Department, Montpelier, Vermont. 147 pages. \$1.00.
Summaries available from the Small Business Administration,
Washington, D.C. 20025.

Coverage: This landmark study is one of the most thorough and competent state studies made in recent years. Financed by a \$40,000 grant from the Small Business Administration, the report takes a broad overview of all aspects of Vermont's tourist and recreation industry. Some of these aspects are covered in great depth, primarily the ski business, the lodging place business, children's summer camps, and the amusement and recreation business. Some 41 pages of the report are devoted to the measurement of tourist and recreation expenditures in other than the above categories. This section is of particular importance since it describes the "direct observation" method of assessing tourist/recreation expenditures, which has not been used elsewhere at the state level.

Scope: The project had the objectives of:

1. Determining the dollar receipts directly attributable to out-of-state travelers, seasonal residents visiting Vermont for vacation and recreational purposes, Vermonters on vacation or recreational outings and Canadians visiting Vermont.
2. Determining the structure of those business concerns which are most heavily dependent on the tourist and recreation industry.
3. Generating a set of "benchmark" data which could be used for making projections of future levels of tourist activity and for comparative purposes in coming years.

To obtain the maximum mileage from a limited budget (the \$40,000 included all expenses and professional fees, including the salaries of state officials who worked on the project) the fullest possible use of published data was made. This involved an imaginative treatment of such data as reports on licensed food and lodging houses, provided by the State Department of Health and returns filed with the Vermont Tax Department. Where published data were inadequate for the purposes of the study, well-designed surveys were made to fill the gaps. The report's importance as a contribution to the "state-of-the-art" lies partially in these ideas on how published materials at the state level can be supplemented by

small-scale studies to create a uniform whole.

Four component studies were made to produce the general overview of the state's tourist and recreation industry. These are:

1. A survey of 139 selected retail and service businesses, which is described in Volume One of this report.
2. A summer residents survey which was based on 370 replies to a mailed questionnaire.
3. A survey of Vermont's ski business which involved interviews with 869 skiers and 334 ski area employees.
4. A survey of over-the-border shopping patterns of Canadians and residents of New Hampshire. This was designed to estimate the inflow of money to Vermont, as a counterpart to which a study of outflows of money spent by Vermonters shopping outside the state, was also made.

The report contains much useful information for anyone about to use such published sources as the Census of Business. It has a number of well-designed questionnaires and discussions of sampling methods, problems of bias, etc. Several of its surveys, such as those on skiing and tourist expenditures, could well be used as models for similar studies anywhere in the U.S.A. It is well worth reading as a basic text for the tourist/recreation researcher.

American Automobile Association. Profile of the American Tourist, 1960-61 edition. American Automobile Association, 1712 G Street, N.W., Washington, D. C. 20006: 1960, 40 pages. \$1.50

Coverage: Collects data from other sources on various aspects of the foreign and domestic travel markets. Includes the results of a vacation travel survey which the AAA made of its members in 1960 (subsequent memberships surveys have been published separately under the title The Chosen Millions). Also included are statements of the role and operations of the AAA, and some travel promotion editorialization.

Scope: This publication contains many references to statistics for which no source or date is given.

The following tabulations relevant to domestic travel and tourist analysis are given:

Passenger car registrations by state for 1955 and 1960 (estimated).

Profile of the American Tourist, Cont'd.

State travel advertising and promotion budgets for 1960.

Number of visitors to National and State parks and forests, 1940's-1959.

Characteristics of the Tourist: The volume, expenditures, average length of stay, and principal sources of origin of the average tourist is given. The percentage of tourists traveling by car, the principal geographical origins of tourists and the percentage of travel by seasons are also included.

The usefulness of this last tabulation is very questionable since it is assembled from a variety of sources in each of the 50 states. Working definitions of "a tourist" and "the tourist business" frequently do not coincide. Many state tourist studies are based on small-sample estimation. Consequently these data should be handled with caution.

The AAA vacation travel survey received a 30% response on 15,000 questionnaires sent to members randomly selected from the total membership of some 7,500,000. This sample is probably not representative of the average American auto traveler, since the socio-economic levels of the typical AAA member seems to be well above that of the average American. The responses reported include:

Number, duration and mileage of vacation trips in 1959.

Mode of transport

Type of accommodation en route and at destination; facilities preferred.

Chief annoyances when traveling and staying in public lodgings.

Though cross-tabulations would have been interesting, e.g., vacation mileage by mode of transport, none are given.

American Automobile Association. Profile of the American Tourist, 1962-63 edition. American Automobile Association, 1712 G Street, N. W., Washington, D. C. 20006: 1962, 44 pages. \$1.50

Coverage: Collects data from other sources on various aspects of the foreign and domestic travel markets. Includes statements of the role and operations of the American Automobile Association, and some travel promotion editorialization.

Scope: This publication contains many references to statistics for which no source or date is given.

The following tabulations relevant to domestic travel and tourist analysis are given:

Passenger car registrations by state for 1955 and 1960.

Status of construction of the Interstate Highway System by states, as of December 31, 1961.

Number of motels reported by "American Motel Magazine" by state. (No date is given.)

Number of visitors to National and State parks and forests, 1950-1961.

Number of trip routings issued in 1961 by 31 selected AAA local branches, and percentage change over 1960. The 31 local branches were selected out of 750.

Tourist volume, expenditures, percentage traveling by car, average length of stay, and percentage of travel by seasons as reported by various agencies for each of the 50 states for 1950, 1955, and 1960.

The usefulness of this last tabulation is very questionable. The comments made on these tabulations in the 1960-1961 edition would apply here to an equal degree.

Note: This edition is the latest available, as of August 1966

Hawaii Visitors Bureau. Annual Program and Research Report, 1964. Hawaii Visitors Bureau, 2051 Kalakaua Avenue, Honolulu, Hawaii 96815. 40 pages. Free.

Coverage: One of an annual series of reports summarizing the Bureau's research activities and reporting the observed trends in Hawaii's visitor industry. The report also outlines the Bureau's programs for advertising and promoting Hawaii, soliciting conventions, promoting special events, monitoring visitor complaints, and financing these programs.

Scope: All passengers arriving in Hawaii must complete a U. S. Department of Agriculture form concerning the importation of plants and fruits. The bottom half of this form is a brief questionnaire used by the Visitors Bureau. Although completion is voluntary, this procedure seems to assure a high response rate. In 1964, 79% of arriving Westbound passengers were surveyed in this way. Westbound travelers constitute four-fifths of total overnight visitors. However, very little information is provided concerning the Eastbound visitor.

This report contains 26 tabulations of the following types of information:

Mode of transportation (air or sea)

Direction of travel

Origin and destination of travelers (visitors to Hawaii, and visitors beyond Hawaii by ultimate destination)

Age and sex distribution of travelers

Length of stay

Purpose of trip

Occupation of travelers

Hotel occupancy percentages

Census of average daily number of visitors

Inventory of lodging facilities.

The Hawaii Visitors Bureau has established very high standards for other areas to follow, though the obvious advantages of Hawaii's insularity are not available to the researcher in most other areas.

The Bureau's Annual Research Reports are only a part of its work. The Bureau has also undertaken more detailed marketing studies which are available to the travel industry. Copies of these other studies, as well as specimens of the survey questionnaires, should be secured for possible adaptation to other areas.

Charles E. Silberman. "The Money Left Over for the Good Life," Fortune magazine, November, 1959, page 134, et.seq.

Coverage: This article discusses the distribution of disposable income and changes in its allocation over the period 1929-1959. The author turns away from the idea of conspicuous spending. He advances the thesis that spending on recreation, in a tightly-defined sense, has hardly increased as a percentage of disposable income, since 1929.

Scope: The author defines recreational spending as that made "for admissions to movies and spectator sports, for sporting goods and participant athletics, and for books, magazines, gardening, and foreign pleasure travel." He states that this was only 4.8% of after-tax income in 1958, 4.9% in 1947, and 4.7% in 1929. In 1958 the Commerce Department accounts showed that spending on recreation, as defined above, amounted to only \$16 billion.

"This figure . . . understates the full amount that Americans actually lay out for recreation and leisure. A good deal of spending for the operation of automobiles and for other forms of transportation and much that goes for housing and home goods and even food (e.g., liquor) must also count." (p. 135)

Defined in this broader sense, spending on recreation and leisure in 1958 amounted to \$41 billion. The author concludes that "The significant fact . . . is that spending for recreation has grown no faster than consumer income in the postwar (period), whichever definition is used" (p. 135).

Postwar Trends in Spending on Recreation

Since 1947 there has been a major substitution of participant sports and activities for spectator sports. The share of disposable income going to "commercial spectator amusements," e.g., baseball, movies, horse racing, boxing, etc., has dropped from 1.1% in 1929 to 0.7% in 1958. The share devoted to boating, sporting goods, athletic activities, etc. has risen from slightly under 1% in 1929 to 1.6% in 1958. The share spent on foreign travel has risen sharply since 1947, but is still below the 1929 level when fewer people went abroad, but traveled in much grander style.

Since 1947, American consumers have reduced their spending for "spectator amusements" from \$2.3 billion to \$2.2 billion in 1958. This has been most pronounced in motion-picture box-office receipts, partially due to the rising popularity of television. Seven million Americans owned boats in 1959, compared with about 2 million in 1947, and about 20 to 30 million hunting licenses were issued in 1959.

"The Money Left Over for the Good Life ", Cont'd.

National Expenditures for Domestic Vacation and Pleasure Travel

The author states that Fortune magazine used Department of Commerce Accounts to generate a 1958 total for domestic vacation spending, weekend and pleasure travel of \$10.5 billions. This was more than double the 1947 figure.

Fortune then constructed its own estimate of annual domestic spending, using information from the Curtis Publishing Company's surveys and annual Department of Commerce data on spending for hotel and motel accommodations, intercity travel, spending on gasoline, etc. The methodology used is not stated. However, Fortune arrived at a 1958 estimated national total of \$10.6 billion. The components of this total were given, on page 250 of this issue of Fortune. as

\$5.4 billion for lodging and meals.

\$1.2 billion for plane, train and bus fares.

\$2.0 billion for automobile expenses.

\$2.0 billion for vacation homes and incidental purchases.

The Three or Four Day "Working Week."

On page 137 of the Fortune article there is some discussion of the likelihood of a shorter work week occurring. The author suggests some interesting reasons why the shorter work week is unlikely to occur in the near future.

Friedman, Robert S. How States Find out About their Tourist Trade.

1954. Bureau of Governmental Research, College of Business and Public Administration, University of Maryland, College Park, Maryland. Out of print. Library copies generally available. 43 pages.

Coverage: In effect this book is an earlier "state-of-the-art" study. Definitely not a handbook on how to perform tourist studies, it is rather an examination of the types of information gathered, the relationship of the gatherer to the user of this information, and the uses to which the information was put. Skeletal outlines of methodologies are given, but the book's significance lies primarily in its unique attempt to examine the administrative structures underlying state-sponsored research into tourism. The book is largely based on a questionnaire sent to 48 states by Dr. Friedman, and extensive correspondence between Friedman and various state agencies early in 1954. The specifics of the book are, therefore, largely out of date.

How States Find out About their Tourist Trade, Cont'd.

Scope: Friedman states that the most frequent purpose in collecting data on tourism "is the determination of the success of promotional efforts of the state" (p.4). "Of almost equal importance is the opportunity afforded the state through tourist studies to examine the extent to which various state facilities are put to use, especially highways and parks, with an eye to future planning" (p.4). Because of these two primary purposes for information gathering, the agencies which collect it are located in either state highway, park or conservation agencies where planning is of prime interest, or in the state commerce, publicity or information agencies where promotion is the chief objective. The latter was generally the case in 1954.

Friedman observes that "where promotion and data compiling are united, and no specific workload is earmarked as data collecting, a strong temptation seems to prevail to spend available funds on advertising and promotion" (p.11). This situation still exists in many states twelve years after Friedman wrote, and is largely responsible for the poor quality of tourist research in those states.

Friedman suggests that the method used in making a tourist study will be largely determined by the nature of the agency making the study, "irrespective of the purpose for data collecting" (p.15). Thus, a state highway department will probably use traffic counts and point-of-entry interviews, since state police and traffic engineers are readily available. Conversely, a state publicity agency tends to use questionnaires sent to a sample of people requesting information from them in the past, since they already possess a ready-made mailing list.

Conclusions: Dr. Friedman concluded that:

1. When a decision has been made to conduct a study "it is essential that the purpose or purposes...be clearly spelled out...(in order to determine) responsibility for the task, necessary personnel and funds, and procedures to be followed" (pp.35-36).
2. "Above all, it is essential to finance the compilation of data adequately and in such a way that funds are clearly designated for that purpose" (p.36). He reports that a number of states have solved this problem by using outside agencies to conduct their studies. These may be public, such as the Bureau of Public Roads or a state university, or private, as in the case of a contract research organization.

How States Find out About their Tourist Trade, Cont'd.

3. " In deciding what data are to be collected and techniques of compilation, it is essential to weigh carefully the purpose for the data and to gear the data directly to the needs of the study" (p.37).

Although Friedman's specifics are now twelve years old, his overall conclusions are still valid today.

Rathmell, John M. The Economic Impact of Recreational Travel on a Local Community. 1956. Graduate School of Business and Public Administration, Cornell University, Ithaca, New York. Out of print. Loan copies are available from the author at the above address. 24 pages.

Coverage: Report of a low-budget pilot study of the impact of recreational travelers on the community of Alexandria Bay, New York during the period July 11 - August 28, 1955.

Scope: One field worker observed cash register transactions one day per week in rotation at each of five typical retail establishments serving both transient and local populations, viz., a drugstore, supermarket, restaurant, hardware store, and service station. However, the field worker's hours did not include evening store hours, and he could not get full coverage of the transactions in the two larger establishments.

A total of 3,781 transactions was noted and classified according to whether they were made by a permanent resident, a summer resident, or a transient. The status of each purchaser was determined by asking them verbally on completion of their purchase. The latter two categories were combined as "recreational travelers". Permanent residents and recreational travelers were compared as to the number of transactions and dollar volume of sales they generated, and indices of "transaction" and of "dollar-impact" were calculated to show the proportion of total business generated by recreational travelers. Other tables compare permanent residents and recreational travelers according to a) transaction frequency over the days of the week, b) buying patterns, c) the effect of weather on their transaction frequency, and d) the average size of the buying party.

Transients passing through, and coming to, Alexandria Bay were compared in the average dollar volume on their transactions, and the number of parties per retail classification.

The Economic Impact of Recreational Travel on a Local Community, Cont'd.

A separate tabulation of bank transactions is included, comparing selected winter and summer days.

The author advances three propositions:

1. An area's ultimate consumer market consists of fixed and floating populations. The latter is either temporarily or permanently flowing in.
2. The temporary floating population's expenditure pattern is influenced by a) travel requirements, b) the area's recreational environment and facilities, and c) the traveler's subjective buying mood.

The author suggests State agency studies of other communities, leading to the construction of a contour map of high and low points of recreation travel economic impact.

The Committee on Research Methods of the Western Council for Travel Research. Standards for Traveler Studies. 1963. Western Council for Travel Research, P. O. Box 8066, Foothill Station, Salt Lake City, Utah. 83 pages. \$2,00.

Coverage: This is a manual for highway travel surveys, and covers in varying detail such topics as 1) information needed and questions to be used in traveler surveys, 2) survey and sampling design, 3) data collection procedures, 4) the art of interviewing, and 5) analysis and reporting of results. Included is a worked-out example of a highway traveler survey meeting the proposed standards, and a suggested questionnaire form.

Scope: This manual contains the ideas of many people, being the outcome of two years of extensive debate among people with experience in traveler research projects. It is not regarded by its authors as the final word in traveler research, but rather as a start in the required direction. The section on survey and sample design, which forms the heart of the booklet, is too technical for the average layman and probably contains little for the professional statistician except such lessons from experience as are built into the proposed basic survey design. Nevertheless, this booklet is valuable in outlining many of the pitfalls, problems, and possible biases in traveler research. Administrative personnel might find it useful in acquainting themselves with the problems their statistical staff will face; such mutual understanding should result in better coordinated research efforts.

The sections on data collection procedures i.e., selection, training and supervision of interviews, operation of interview stations, etc., are only brief discussions of somewhat elementary points.

While this booklet should definitely be read by those who intend to design and conduct a traveler study, it will be necessary to supplement its methodological and statistical sections with other works on these topics.

Harding, Horace W. The Kansas Tourist Study-1952. Bureau of Business Research, School of Business, University of Kansas, Lawrence, Kansas. 1953. No price given.

Coverage: This is an early out-of-state motorist study based on 10,011 usable interviews with such travelers and 6,339 interviews with Kansas motorists. The report presents information on the origins and destinations of these tourists, their trip purpose, the total number of miles which they traveled in Kansas and their reasons for selecting the route which they used. The report also obtained a listing of Kansas attractions visited, and of the methods by which the out-of-state motorist learned of the attractions which Kansas offers. Further questioning related to the motorist's expenditures and accommodations used. One section of the report briefly describes the destinations and expenditures of Kansans outside Kansas.

Scope: This study reached some surprising and uncomplementary conclusions as to Kansas' drawing power for the tourist. Only 8.7% of the out-of-state motorists interviewed were able to name a specific attraction which they had seen in Kansas, while approximately 60% of all tourist parties were merely passing through Kansas. It also concluded that 60.4% of all nights spent in Kansas by tourists were spent in private homes. The preface makes the interesting statement that "The study is particularly timely since this year (1953) marks the first time that an appropriation has been made by the Kansas legislature expressly for tourist promotion".

Method: While this study did not supplement its motorist interviews with surveys of people traveling by other modes, its sampling method is basically well-designed. Some 30 interviewing stations were used. All were operated for at least one 8-hour period during weekdays, seven stations were operated for 16-hour periods and two stations were operated for 24-hour periods. Six stations were operated for 8-hour periods on weekends.

The stations were operated during August, September and December of 1952. In this way the preferences and behavioural patterns of the winter tourist were reflected in the final results - a balancing factor not used in the 1956 Connecticut study. The data collected during these three study months were expanded to give year-round totals on the basis of traffic counts taken by the State Highway Commission, using manual and automatic counters. This is a sound method, but details of how it was worked are unfortunately not given.

Connecticut Development Commission, Survey of Out-of-State Motorists in Connecticut, fall, 1956. State of Connecticut, Development Commission, State Office Building, Hartford, Connecticut. 39 pages. No price given.

Coverage: This survey was made over a 68-day period in the summer of 1956, from July to early September. A count was made of all vehicles leaving the state at 28 points. These points were selected with the help of the State Highway Department to cover the most heavily-traveled roads. 30.6% of all out-of-state passenger cars were sampled. A 3-page questionnaire was used. Data were generated on purpose of trip, expenditures, origins and destinations, composition of car-groups, income levels and reactions to Connecticut.

Scope: Method of Sampling

Twenty-eight sample stations were established. Each was operated for 5 hours at 16 day intervals in such a way that the period of operation was distributed between 6 a.m. and 9 p.m. on different days of the week, including Saturdays and holidays. Interviewing crews consisting of 8 men worked 6 at a time in planned rotation. On heavily-traveled roads they worked as one unit. On lightly-traveled roads they worked as two units of three men. State police controlled traffic at the interview stations.

Budget constraints meant that no more than two stations could be operated at any one time. (The study cost \$13,000, exclusive of report production and salaries of state officials.) Consequently, it was necessary to move from station to station around the state in a clockwise direction until a complete cycle or circuit of the state had been made. Four cycles were made during the 68 day interview period. This yielded 119 data units of 5 hours each, so distributed that no two fell in the same time period on the same day of the week.

A copy of the questionnaire used is included in this volume.

Problems of Bias

The grand total of out-of-state cars leaving the state during the study period was derived by obtaining 4 days of observations, each taken over a 15-hour period of 6 a.m. to 9 p.m., for each station. These were summed and divided by 4 to give an "average day." The "average days" from each of the 28 stations were then averaged to produce an "average day" for the state as a whole. This total was then multiplied by 68 (days in the interview period) to produce a base figure to which the percentages obtained from the sample questionnaires were applied. The base figure was 2,161,720 out-of-state cars. The sample produced some 12,979 useable questionnaires.

The validity of the base figure is questionable since a 4-day average is probably not representative of actual long-run averages on many routes. The minor routes were not covered and probably contained a higher percentage of vacationers who wished to see Connecticut at leisure than did the major highways. These would be likely to make higher expenditures in Connecticut than would these vacationers heading directly for some out-of-state destination, such as Maine or New Hampshire. Since the study was confined to motorists, it cannot be taken as representative of vacationers to Connecticut as a whole.

The volume of traffic being sampled caused problems due to the small size of the interviewing crew, as the report states "Nothing approaching perfect adjustment of crew to volume on the different highways was possible . . . so the rate of sampling tended to vary in inverse ratio to the traffic flow"(p. 13).

Some Significant Findings

The numerically smallest class of vacationers, those who remained in the state for more than three weeks, who made up only 2.2% of the sample, was responsible for the greatest part (74.9%) of all vacationer spending in Connecticut. This was due to their longer stay and the fact that they were concentrated in the higher income groups (82% had family incomes over \$5,000, compared with 68% for the sample as a whole).

Over 22% of the seasonal vacationers said that they would be staying in Connecticut for three months or more. These were probably people who owned or rented second homes in Connecticut. In this respect Connecticut's proximity to a number of large cities, particularly New York and Boston, is significant.

Almost 60% of those vacationers who were staying in the state at least one night but moving on daily, or those who were staying in the state less than three weeks, came to Connecticut to visit relatives. 65% of the nights spent in the state by these groups were spent in the homes of relatives.

Criticisms: The most serious flaw in this study lies in expanding a sample of 12,979 observations into a universe of 2,161,720. This means that only 0.6% of the universe was actually sampled. This is, therefore, a very small sample and the use of confidence limits or the calculation of standard errors are conspicuous by their absence from the report. This criticism applies especially to the estimates of expenditures derived from the sample.

The questionnaire contains some redundancies and could be shortened without the loss of any significant information. The validity of asking a person to recall what he has spent during the previous day or week is particularly questionable.

Nevertheless, this study represents an effective use of a \$13,000 budget and is well worth reading by anyone about to attempt a similar piece of work

Note: The Connecticut Development Commission is making a rerun of this study during the summer of 1966, using a \$25,000 budget and no free state help. Results should be available in the fall of 1966 and the two reports will make for an interesting comparison.

Planning Survey Division, Nevada State Highway Department. Nevada Out-of-State Visitor Survey 1963. Nevada State Highway Department, Carson City, Nevada. 102 pages. No price given.

Coverage: Reports results of 1963 survey of the characteristics and expenditures of non-residents leaving the state by auto, bus, rail and air, and compares selected data with results of a similar study undertaken in 1958.

Scope: Data collected during the spring, summer and fall seasons from 22,500 motorist interviews at the 23 principal highway exits from the state, and from an undisclosed number of interviews of rail and air passengers. Bus passenger data were supplied by the carriers. An acceptable technique was used to expand the data to seasonal and yearly totals, based on year-round traffic counts.

For the motorists, the following information is presented:

- A complete 50 by 50 state origin and destination matrix, including calculation of through traffic and traffic with Nevada destinations.
- Legal residence of motorists regardless of origin
- Size of party
- Time spent in Nevada, and average length of stay of those who stayed overnight
- Type of overnight accommodation used
- Purpose for making stops in Nevada
- Location of traveler stops and expenditures by community
- Accumulated overnight visitors in major cities
- Use of roadside rests
- Type of attraction which brought visitor to the state

Nevada Out-of-State Visitor Survey 1963, Cont'd.

Two less successful questions were also asked each interviewee:

Media used to learn of Nevada attractions
41% gave no answer

Why particular auto route was chosen
92% apparently made uninfluenced choices.

Similar, though not as complete, data are presented for train and air passengers. For bus passengers, the only breakdown given is by type of trip. This breakdown was by chartered or scheduled interstate carrier.

All data, however, include California residents who commute to work in Nevada, and who make casual trips to Nevada retail stores and professional offices in the Lake Tahoe area. Although a separate table shows the percentage of total traffic that these people constitute over four major routes, their inclusion in the reported data invalidates this study as a measurement of conventionally-defined "tourism".

Survey of Expenditures made by Non-Residents.

A separate section of the report deals with these expenditures. Data are presented under the following heads:

Total and average per person expenditure by mode of travel

Total expenditure per county by mode of transport

Seasonal total expenditure by motorists, including average expenditure per vehicle stop and average expenditure per person, for each county and community

Seasonal total expenditure by motorists, including average expenditure per vehicle stop and average expenditure per person, for each of the 23 major routes

Effect of overnight stops on average expenditure per vehicle party

Comparison of weekday and weekend expenditures for three major routes

Budget percentage breakdown of all visitor expenditures
Taxable income from retail sales and gaming for three major counties as a percentage of state total.

New Hampshire State Planning Project. Travel Habits of the Motorist in New Hampshire: Part 1 - Summer (Report No. 5 of The New Hampshire State Planning Project). 1964. New Hampshire State Planning Project, State Offices, Concord, N.H. 84 pages. Free.

Coverage: Reports the results of a routine descriptive sample survey made of New Hampshire motorists during the summer of 1964. Included are composite profiles of the "typical" motorist who travels in the six vacation regions of New Hampshire.

Scope: 56,703 mail-back questionnaires were distributed to motorists at 49 stations set up on the principal highway entrances to the state, and along several "screen lines" running north-south and east-west through the interior of the state. 1,852 man-hours were necessary for this task, which netted 13,333 usable replies (a 24% return). The questionnaires were sorted and tabulated by point of distribution and vacation region within which the distribution point fell. The questions inquired into the following items:

- Type of vehicle in which the motorist was traveling,
- state of registration
- Age, sex, occupation and income group of the motorist
- Size and age distribution of motoring parties
- Purpose of trip
- Origin and destination of the day's trip
- Location and length of vacation, type of recreation engaged in (if any)
- Recreational attractions visited
- Type of lodging place used.

Comment: The presentation of the survey results is somewhat disappointing, especially due to the fact that evidently no multivariate analysis of the results was attempted. This would have made possible interesting cross-tabulations, such as "income group, by type of accommodation used". Had the percentage breakdown figures been shown in the tables rather than incorporated into the text, their interpretation would have been much easier.

All data are presented by vacation region (there are six in the state), and from these tables two or three verbal composite profiles of each region's "typical motorist" are offered. Their usefulness to the vacation business proprietors, for whom they were presumably written is questionable.

A possible bias is introduced because the distribution stations were not kept open for full 24-hour-days--the north-south screen line stations, for example, were only operated between 6:00a.m. and 2:00 p.m. each day.

Systems Analysis and Research Corporations. Economic Impact of Recreation, Vacation and Travel on New Hampshire. (Report No. 9 of the New Hampshire State Planning Project). 1965. New Hampshire State Planning Project, State Offices, Concord, N.H. 92 pages. Free.

Coverage: Presents estimates and an evaluation of the recreation-tourist activity in the State as related to the recreation market, recreation-tourist serving business, vacation home ownership, and the contributions of these activities to the economies of the counties and regions of the State. This is an updating of a study published in 1962 which applied to the year 1958, cited below.

Scope: After illustrating the importance of the 9 Northeastern states as sources of New Hampshire's vacation/travel business, this report attempts to infer something about growth potential by comparing:

- a) Five tables of cross-tabulations and breakdowns of Bureau of Labor Statistics data on consumer expenditures "out of home city" by Northeastern States residents in 1960-61, by income level, which is said to show income elasticity in demand for vacations and summer homes

with

- b) Projections of family income distribution in 1976 made by the National Planning Association.

However, no numerical projection of New Hampshire's vacation/travel business volume is made on the basis of this comparison, which may indicate an awareness on the part of the authors of the probability of changing demand functions in this area.

Travel-service business data from the Census of Business is compared for the states of New Hampshire, Maine and Vermont, to show relative rates of growth.

The core of this report is the estimation of gross receipts from recreation, vacation and travel in New Hampshire for 1963. Such estimates are made by the two methods which were used in Vacation Travel Business in New Hampshire - a report published by the New Hampshire Department of Resources and Economic Development, in April 1962, which is reviewed in this volume.

The first, and admittedly more reliable, method attributes to vacationers and pleasure travelers portions of the total receipts of those Census of Business SIC categories which are thought to receive 80% of the tourist and recreation dollars. The problems are that:

- a) The selected SIC categories (hotels, motels, eating places, auto service businesses, amusement and recreational services, etc.) may not receive exactly 80% of the dollars spent by recreation/travel/vacation consumers in New Hampshire, and
- b) The percentage allocations of portions of these receipts to the tourist account are based on "estimates", which except in the case of lodging places, do not appear to have been based on research. These "estimates" are particularly tortuous in the computation of an average allocation to vacation and travel for the many amusement and recreation services.

After adding an "allowance for tips" to the attributed first receipts, the resulting 80% estimate of vacationer and traveler spending is divided by 0.8 to get a 100% estimate. An amount equal to 85% of the estimated expenditures by seasonal residents not already included is then added to get total vacation and travel spending. This latter adjustment, which amounts to some \$51 million, implies an expenditure of \$1,700 annually per seasonal dwelling--which is an increase over the \$1,400 figure that was borrowed from a 1960 Wisconsin study for use in the 1962 study cited above. The \$1,400 figure, however, applied to 1958.

Up to this point our authors have produced a \$164 million estimate of sales and receipts from vacation and travel, but they decide this is too low, and adjust it upwards to \$180 million. To this figure is added the estimated \$15 million spent for travel-related recreation and liquor by residents and visitors, which was derived by the now-familiar percentage allocation method. A multiplier of 1.6, the same as that used in the 1962 report cited above, is applied to the total to get a "total income generated" figure of \$315 million.

The second estimation method involves adjusting U.S. average per capita receipts in the selected SIC categories downward (by means of Bureau of Labor Statistics

standard of living data) to represent New Hampshire residents' own per capita spending--and then subtracting these figures from actual per capita New Hampshire receipts in these categories. The difference is attributed to "tourists". The report rightly places little faith in this method, which requires some heroic and questionable assumptions.

The report provides estimates of the amounts of the total expenditure accruing to the State of New Hampshire itself directly through licenses and tolls, etc., and indirectly through various excise and sales taxes.

Also included are tables presenting, for each county, selected travel indexes as follows:

- 1) Estimated year-round and seasonal population.
- 2) Estimated lodging-place and children's camp capacities.
- 3) Selected retail sales receipts in dollars, as a percentage of growth over 1954 receipts, and as a percentage of the state total.
- 4) Lodging place receipts in dollars, as a percentage of growth over 1954 receipts, and as a percentage of the state total.
- 5) Amusement and recreation receipts in dollars, as a percentage of growth over 1954 receipts, and as a percentage of the state total.
- 6) Reported mean personal income.

The final section of the report deals with seasonal homes in New Hampshire. Tables are presented to show regional distribution of the permanent residence of seasonal home owners in each county and region of New Hampshire, and the number of seasonal homes in each county and region.

SECTION 2

FACTORS AFFECTING GROWTH; DEMAND PREDICTION

Jack L. Knetsch. "Outdoor Recreation Demands and Benefits".

Marion Clawson. Methods of Measuring the Demand for and Value of Outdoor Recreation.

Dr. J. B. Ellis. The Use of Program "RECSYS" in Michigan Recreational Planning.

Outdoor Recreation Resources Review Commission Staff, Prospective Demand for Outdoor Recreation.

California Resources Agency, Department of Parks and Recreation. Outdoor-Recreation Outlook to 1980.

Knetsch, Jack L., "Outdoor Recreation Demands and Benefits," Land Economics, Vol. XXXIV, No. 4, November, 1963. pp. 387-396.

Coverage: This article reviews, explains, and expands the travel-cost method of deriving demand curves for recreational resources first developed by Marion Clawson in 'Methods of measuring the Demand for and value of Outdoor Recreation,' February 1959. Reprint 10, Resources for the Future, Inc., 1755 Massachusetts Avenue, N. W., Washington, D. C.

Scope: Knetsch explains the Clawson demand curve through the use of a hypothetical example. The principle underlying this method is the assumption that observed patterns of visits to parks by residents of different cities can be explained in terms of the travel cost of reaching the parks. Visits per unit of the total population decrease with increasing travel costs. A demand curve can be constructed from numbers of visits by origin and travel cost information in the following way: With an initial entrance fee of zero, the number of visits represents the zero-cost point on the demand curve. By imposing an additional price in the form of an entrance fee, the number of visits from a particular city would decline as if the travel cost were increased by the amount of the entrance fee (assuming homogenous preference functions). By postulating increments in travel cost and calculating the number of visits that would result, a demand curve can be traced out and plotted on a graph.

Knetsch points out the limitations of this method, and suggests the addition of further variables to the basic travel-cost model. These variables are income, a measure of substitute areas available, and congestion. A formula incorporating all of these variables would be useful in predicting demand for new or altered recreation resources.

Another use for the demand-curve method is found in its application to benefit-cost analysis. Knetsch defines the value of a recreation resource as the total area under the "demand curve" plus the resulting increment to capitalized land values. He does, however, realize that this total would include a certain amount of double-counting.

The effects of fee collection can also be predicted from a demand curve of the type described, since it measures the consumers' willingness to pay for recreation. To the extent that the consumer regards an admission fee as different from a travel cost, however, the model is weakened.

Another flaw in the travel-cost method arises from the fact that it does not take into consideration travel-time.

"Outdoor Recreation Demands and Benefits", Cont'd.

Travel-time is closely correlated with travel-cost. However, the existence of this double factor results in a systematic underestimation of true demand in the process of postulating increases in travel cost and calculating the corresponding expected number of visits. Although Travel-time will not change, "travel-cost" will be increased through the imposition of a user-fee.

Clawson, Marion, Methods of Measuring the Demand for and Value of Outdoor Recreation. Resources for the Future, Inc., Reprint No. 10. 1959. Resources for the Future, Inc., 1145 Nineteenth Street, N.W., Washington 6, D. C. 36 pages. Single copies free.

Coverage: Develops a method of estimating the demand curve (price x quantity) for outdoor recreation facilities.

Scope: The method used is as follows: for each concentric time-travel zone surrounding a recreation facility, separate attendance data are collected over a period of time (say, one month). The travel cost from each zone is also calculated. Multiplying these costs by the actual per capita visits from each zone produces a demand schedule, from which the demand curve for this particular facility can be derived with the help of two limiting assumptions. The first assumption is that users of the recreation facility would view an increase in entrance fees in the same way as an equal increase in the total travel cost of a visit. The second is that the visitors from one zone would behave similarly to people in other zones if costs in time and money were equal.

If these twin assumptions are accepted, the effect of an increase in user fees can be predicted by postulating increments in travel cost and reading off the per capita rate of visits which could then be expected from each concentric zone. These new per capita rates, multiplied by the populations of the zones, would yield an estimate of the total number of visits which could be expected. From similar calculations of the estimated number of visits at each level of increased fees, a new point can be plotted. Clawson claims that linking these points together approximates the true demand curve for the recreational opportunity.

Dr. J. B. Ellis, The Use of Program "RECSYS" in Michigan Recreational Planning 1965. Recreation Resource Planning Section, Michigan Department of Conservation, Lansing, Michigan 48926. 69 pages. No price given.

Coverage: This report is a description and handbook for the use of a computer-program systems model of recreation-travel activities in Michigan. Included is a brief open-ended discussion of the uses of this computer model in a planning context.

Scope: The RECSYS model is designed to deal individually with any recreation-travel activity in the state of Michigan on an area-by-area basis. The model has three components:

1. Destinations - Michigan was divided into 72 areas consisting of counties or groups of counties for the purpose of measuring current recreation use and potential use. These areas are also used for projecting future recreation use.
2. Origins - similarly, 74 areas, including 8 areas outside Michigan, were chosen as the points of origin of recreationers.
3. Interconnections - built into the model are the constraints imposed by the system of 211 principal highway links connecting all of the origins with all of the destinations.

The following formulations state the behavior implicit in the model:

1. FLOW for any highway link = $\frac{1}{\text{Resistance of Link}}$ x P, the propensity to recreate
2. Resistance for any link = $K_1 \times \left[\frac{\text{Distance}}{\text{Average Speed over link}} + K_2 \times \left(\text{gas and toll expense} \right)^A \right]$
3. Flow into an area = $K_3 \times \frac{\text{Attraction Index for the area}}{\text{for the area}} \times P$

Where: K_1 , K_2 , and K_3 are constants. A is an exponent, also a constant

The RECSYS model for Michigan is contained on punch-cards, presumably ready for off-the-shelf use in analysing any particular recreation activity, e.g., camping, as soon as the necessary data against which to calibrate the coefficients of the model become available. The data, which can be developed either from surveys or direct enumeration, must include the following:

1. A resource inventory of facilities and potential facilities for the particular activity in question.
2. Use statistics, by area, for the activity--if possible arranged in a time series.
3. Origin of users, by destination area.

Before the first computer run can be made, it is necessary to assign "attraction indices" to each of the recreation areas, a different attraction rating being necessary for each activity in each area. (Destination capacity data are punched onto the cards separately.) The authors suggest two method of doing this:

1. Intuitive construction - subjectively rank areas on a 5-point scale of quality of facilities. These rankings will be adjusted later during the process of calibration.
2. Use of factor-analysis techniques - an attempt can be made to formulate attractiveness indices empirically from inventory data by the method of factor analysis. The authors refer to and give a brief intuitive explanation of another canned program available at Michigan State University, called FANOD 3. Use of this method does not eliminate subjectivity, however, as the factors identified by FANOD must be weighted and summed for each area.

At this stage in the use of the model, a series of trial runs must be made in an effort to calibrate the coefficients until a satisfactory standard deviation value is obtained. Standard deviation is a measure of the extent to which the model "fits" the actually observed data. It is not meaningful to obtain a "fit" of closer tolerance than the quality of the user data fed into the program; this fact illustrates the prior necessity of accurate and complete data collection efforts if the recreational planners are to proceed scientifically.

Model calibration is done in three progressive states:

1. Gross calibration - adjusting only the destination attraction scaling constant (K_2) step-wise until the lowest standard deviation is obtained.
2. Fine calibration - step-wise adjustments of first the time-cost exponent (A), and then the highway link resistance constant (K_1).
3. Fine tuning - reduce or increase the attraction index value of each area by the amount of over- or under-estimation that occurs for each area after the gross and fine calibration processes have been completed.

Projection with RECSYS is done by running the fully-calibrated model with certain changes in the base data and/or attraction indices. The "error" terms in the program print-out then become "percentage shift" figures by which to evaluate the projected results of making the changes. The author gives examples of the types of changes that the model will evaluate in terms of demand for the facilities in the 72 destination areas:

1. Highway data projections - planned highway construction introduces new links, which may result in different demand patterns. Congestion which increases average speed over various links will increase link resistance, and have an effect on flow.
2. Origin data projection - calculation of new origin-participation inputs, either hypothetically or on the basis of surveys, will change results.
3. Attraction index projection - RECSYS can be used to evaluate changes in area recreation facilities and capacity. A separate chapter is devoted to this important topic which will be discussed below.

The implicit behavioral assumptions in the model can also be altered and tested; the authors give examples of possible changes and show how to introduce them efficiently into the model.

As mentioned above, a separate chapter on plan evaluation with RECSYS is included. Examples are given of a hypothetical problem (planning for the projected user-use of 5 areas), and evaluations of three construction plan solutions. This exercise is instructive since it shows that the interdependencies of the state's recreation system produce results which are not easily guessed, without the use of a model such as RECSYS. However, once a basic set of solutions have been decided upon, some subjective criteria must be chosen to evaluate the plan results shown by RECSYS.

Criticism: Though it represents a first step in efforts to construct simulation models of recreation systems, RECSYS is a sophisticated and potentially useful program. The author's pioneering effort is illustrative of high-quality quantitative research in travel and tourism, of which little has been published to date.

Beyond the problems of securing accurate input data, the following are some limitations of the model:

1. The model does not account for multi-stop trips which originate partly at "destinations," rather than "origins," and only applies to automobile travel.

2. The model only works for one activity at a time, so it is not convenient for use in planning multi-purpose facilities. All the different activity runs must be made and compared to make sure that incompatible plans are not pursued. The model is, however, a tremendous improvement over the costly trial-and-error method of multiple use planning. This problem emphasizes the need for realistic capacity measures which reflect the constraints of multiple usage. Basic research must be done in this area, before it can be adapted for multi-purpose facility planning.
3. The model assumes that shifts in public tastes will be "very long run," so that the attraction indices are changed only if the planner plans to change them. This fails to take account of the phenomenon of saturation of facilities that occurs with population growth and greater affluence, and fails to take account of rapid changes in preferences such as have occurred in the past (e.g., the recent rapid development of skiing).
4. It appears that the model will assign over-capacity demand to particular areas, because though it assumes "perfect knowledge" of all recreation alternatives by recreationers, it does not assume any knowledge of over-capacity conditions during peak periods. Another behavior function, which re-routed the excess demand to alternative areas, might be an appropriate addition to the model.
5. The formulae are not given for the entire model, leaving the reader to speculate on how the model is "closed."
6. One stylistic criticism is that the formulae should be expressed symbolically, as well as verbally, thus facilitating easy reference throughout the text. This would be time-saving, and would not unduly confuse lay readers.

The report reviewed was in provisional mimeographed form. It is now available in final form, entitled: Outdoor Recreation Planning in Michigan by a Systems Analysis Approach, Part 1 - A Manual for "Program RECSYS," pub. Michigan Department of Conservation, Lansing, Michigan 48913. May 1966. 69 pages.

Outdoor Recreation Resources Review Commission Staff, Prospective Demand for Outdoor Recreation. ORRRC Study Report 26. 1962. Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. 40 pages. 40¢ (Must accompany order.)

Coverage: Explains various cross-section and time-series methods of projecting future demand for recreation facilities. Because of the lack of adequate time-series data, the report concentrates on cross-sectional methods, as used to arrive at the demand projections presented by the ORRRC in 1962 in their report to the President and Congress, Outdoor Recreation for America.

Scope: The cross-section data on socio-economic characteristics of the American recreationer/tourist used in this report are taken from the National Recreation Survey (ORRRC Study Report 19). Seventeen different recreational activities were investigated. Through multivariate analysis, as explained in this report, the separate effects of changes in socio-economic status upon participation in each of the activities was estimated. By reweighting these factors so that they conform to the expected socio-economic patterns in 1976 and 2000, it was possible to arrive at participation rates in these activities. Multiplying by the expected population, the total number of recreation occasions (user-days) were estimated for the selected activities in the target years. It was this information that the ORRRC presented in its report, Outdoor Recreation for America.

Study Report 26 also presents projections of other measures of recreation/tourism demand, made by analyses conducted after the Outdoor Recreation for America report was released. Using the same multivariate analysis method, attempts were made to project the demand for vacations and outdoor recreation trips and outings. Annual participation in selected activities while away from home on trips was also projected. Seasonal participation rates form another category of projections made in this way.

Comment: Unfortunately, the various types of projections made in this study report are not directly comparable with one another. A major weakness of this kind of cross-sectional multivariate analysis, upon which all the projections are based, is that the socio-economic variables do not in themselves explain a large portion of recreationer/tourist behavior. This fact is revealed and discussed in ORRRC

Study Report 20, Participation in Outdoor Recreation:
Factors Affecting Demand Among American Adults.

Presumably, as further research is done, and as another National Recreation Survey is conducted, the data can be improved upon somewhat, and the projections redone in light of the time-series data which would be created by such a survey. Only in this way can the projections take account of changing tastes, which might not be reflected in current patterns of recreationer/tourist behavior.

California Resources Agency, Department of Parks and Recreation. Outdoor Recreation Outlook to 1980, Monography No. 1, "Los Angeles Metropolitan Complex." 1966. Documents Section, Printing Division, P. O. Box 1612, Sacramento, California 95807. 59 pages.

Coverage: This report presents estimates of demand through 1980 for recreation facilities in the greater Los Angeles area. It compares these estimates with projected supply.

Scope: The procedure used to estimate demand in this study begins with data from the National Recreation Survey (ORRRC Study Report 19) which was conducted in 1960. Per capita participation rates for the western United States, by socioeconomic category, were derived from the national survey data by the Stanford Research Institute. The coefficients of determination of each factor are applied to the socioeconomic characteristics of the metropolitan area population as expected in 1970 and 1980. The resulting reweighted per capita participation figures for each of the 23 outdoor activities are then converted into total recreation occasions by multiplying them by the projected metropolitan population. A separate survey determined the seasonal and daily peak demand patterns for the 23 activities. By applying these relationships to projected 1970 and 1980 annual demand, it was possible to arrive at estimates of peak demand for these years. These capacity requirements were then compared with existing and planned facilities for each activity, and deficiencies were identified.

Because the projected total and peak demand for each type of recreation activity is apportioned over concentric travel-time zones from the center of the metropolitan area, this study has great value for planning purposes. It has been found, for instance, that in 1965 Los Angeles residents engaged in about 41% of their total recreation activity within a one-hour travel time distance from their homes. By including projected highway construction plans into travel-time zones, the future geographic location of the needed recreation capacity can be pinpointed.

SECTION 3

PROMOTION AND ADVERTISING

- Elbert V. Bowden. The Feasibility of an Area-Wide Tourist and Travel Promotion for Tidewater Virginia.
- Louise Shadduck. "Making Travel Advertising Effective".
- Doris Stalker. "Advertising and Travel Promotion--Research in Action".
- I. V. Fine and E. E. Werner. Analysis of Requests for Vacation-Information, Wisconsin Vacation-Recreation Papers.
- John O. Boynton. "Tourist Research in Florida".
- Florida Development Commission. Annual Report 1965.
- Erds and Morgan Associates. Travel Patterns: A National Geographic Travel Survey.
- James L. Bossemeyer, and NATO staff. Travel U.S.A. Handbook.

Bowden, Elbert V., The Feasibility of an Area-Wide Tourist and Travel Promotion for Tidewater Virginia. 1963. Tidewater Committee of the Virginia Travel Council, P. O. Box 5133, Chesapeake, Virginia. 76 pages. No price given.

Coverage: Dr. Bowden was retained by the Tidewater Council to study the impact of an area-wide tourist and travel promotion program on the economy of Tidewater Virginia. The report begins with a general survey of the attractions of the Tidewater area to the tourist, summarized in a list of promotable attractions. Its central section is an overview of tourist promotional activities in other parts of the United States and a discussion of the relative sizes of the budgets available to a number of promotional agencies. The third section of the report ties together the information and general conclusions gathered from the preceding sections. It then assesses the impact of such a program on the Tidewater economy.

Scope: Section II: "Tourist Promotional Activities in Other Areas" will be the most important part of this report to most researchers. In the course of 27 pages, Dr. Bowden presents the most comprehensive overview of current tourist promotional methods which this author has yet discovered. He begins with a discussion of the advertising and promotional budgets of twelve promotional agencies in the United States and of eleven foreign agencies. This is followed by a justification of the area-wide approach to promotion. The current status and general effectiveness of area-wide promotion and advertising are then examined.

Dr. Bowden next looks into the promotional activities of the All-Year Club, the Berkshire Hills Conference, the Greater Myrtle Beach Chamber of Commerce, the Redwoods Empire Association and three state or local agencies. His discussion is rounded out by an examination of the phenomenal post 1945 growth of the tourist industry in the Bahamas.

Section III of this report: "The Expected Impact of an Area-Wide Promotion on the Economy of Tidewater Virginia" represents a pioneering attempt to predict the economic impact of a major promotional campaign. It contains an interesting discussion of the use of promotional dollar to tourist expenditure dollar ratios. It also examines the "tourist promotion multiplier effect" in an intelligent and helpful manner.

However, at this point Dr. Bowden's methodology becomes suspect, especially when he applies rules of thumb drawn from other states and a hypothetical ratio of promotion dollars to income dollars. The "multipliers" of basic

income to secondary respending which he uses are particularly dubious. The researcher should look into the two reports from which Dr. Bowden borrowed his "multiplier" to fully appreciate the limitations which surround this method.

There can be no doubt that a "multiplier effect" occurs in any local economy, but to claim that its respending effect can be expressed in a single figure, which is then applied across the board, is violating what we know of tourist spending from such exact studies as the Vermont investigations of 1960-61. (See Thompson, John M. Jr., Project Director. The Tourist and Recreation Industry in Vermont, October 1963. pp 77-94.) It is clear from the Vermont work that some sectors of a local economy benefit greatly from tourism, while others are virtually unaffected.

Shadduck, Louise, "Making Travel Advertising Effective," Proceedings of the Sixth Annual Conference, Western Council for Travel Research (1964). pp. 154-156 and p. 166. Secretary-Treasurer, Bureau of Economic and Business Research, University of Utah, P. O. Box 8066, Foothill Station, Salt Lake City, Utah. 263 pages. \$2.50

Coverage: This paper was one of a panel series. It outlines the work of the Idaho State Department of Commerce in promoting tourism in that state.

Scope: The Idaho promotion program was established by the State Legislature in 1955. The first 4-5 years of the program were devoted in part to overcoming local antipathy towards an influx of tourists and tourist-induced change. This was done largely through a program of talks by Department of Commerce personnel around the state. Today interest in tourism is widespread and many local organizations, such as chambers of commerce, have instituted their own promotional programs.

Until 1964, all of Idaho's advertising was by means of clip-out coupons, inserted in newspapers and magazines. This was mainly in order to arm the promoters with proof that people were reading their advertisements. This was necessary to demonstrate the "worth" of the promotion program to the State Legislature, who funded their budget.

In 1964, Idaho abandoned the coupons and changed to advertisements which included the statement "Write to the Department of Commerce and Development for information on Idaho." With an equivalent budget to that used for the coupon system and its analysis--which was expensive--the number of inquiries received increased by about 20%.

Like Montana, Idaho stages tours of the state for selected travel editors.

Stalker, Doris, "Advertising and Travel Promotion--Research in Action," Proceedings of the Sixth Annual Conference, Western Council for Travel Research (1964). pp. 79-82. The Secretary-Treasurer, Bureau of Economic and Business Research, University of Utah, P.O. Box 8066, Foothill Station, Salt Lake City, Utah. 263 pages. \$2.50

Coverage: Discusses the work of the Montana Highway Commission's Advertising Department in using the results of the 1958 Montana Travel Study to shape its advertising campaign. Also discusses the overall work of the Montana Advertising Department in promoting the state's tourist industry.

Scope: The 1958 Montana Travel Study showed that more visitors came from Washington than any other state, while visitors from California spent more money and stayed longer than those from other states. These two states were, therefore, treated as the prime markets for Montana. The study indicated that a substantial number of tourists visited either Yellowstone or Glacier National Parks, consequently, the scenic aspects of Montana were emphasized in their advertising. Since the study indicated that the average visitor stayed 3.5 days in Montana, a "Five in Sixty-five Program" was launched, with the goal of extending the average length of stay to five days in 1965. This involved an in-state promotion program to acquaint local employees, likely to come into contact with tourists, with the state's tourist facilities and areas likely to be of touristic interest.

Montana has an annual Pacific Northwest Travel Editors' Tour, in which four travel editors from the potential market area are invited to tour Montana for two weeks.

In 1959, Montana entered into a four-state cooperative program with Colorado, Utah and Wyoming to jointly promote the Rocky Mountains as a tourist area. Under this program full page advertisements were purchased in the New York Times, and an eight page supplement written and inserted in the Los Angeles Times and the Oakland Tribune.

Fine, I. V. and Werner, E. E., Analysis of Requests for Vacation-Recreation Information, Wisconsin Vacation-Recreation Papers, Vol. 1, No. 9, 1960. University of Wisconsin, School of Commerce, Bureau of Business Research, Madison, Wisconsin 53706. 14 pages. Free

Coverage: A sample of 4,000 persons, who had written to either the Wisconsin Department of Conservation's Madison or Chicago information offices, was surveyed to determine the effectiveness and adequacy of the state's advertising and promotion program. A two-page mail-back questionnaire was sent out and 1,665 useable returns received.

Scope: The survey uncovered some unexpected facts:

1. The most frequently used source of information on recreation and tourism was a state agency, followed by local agencies such as chambers of commerce. Commercially operated sources of information, such as travel bureaus, the AAA, and gasoline companies were relatively minor sources of information.
2. Persons seeking information were least satisfied with that given them on lodging places and other accommodations. They complained in particular of the lack of definite information on rates, whether pets were permitted and the type of facilities available.
3. Persons contacting the Chicago office for information had a much greater tendency to come to Wisconsin than did those who contacted the Madison office.
4. Only 60% of the respondents to the questionnaire claimed to always plan their vacations well in advance of taking them. A definite pattern of starting to plan one's vacation two to three months before making the final decision emerged. Presumably advertising would be most effective during this planning period.
5. Two-thirds of the questionnaire respondents had written to the Madison office because of advertising. Slightly over half of those writing to the Chicago office did so in response to advertising.

Comment: This report could be used as a model for setting up an advertising effectiveness study in almost any state. A sample of the questionnaire used is included as an appendix. It is well designed and could be used elsewhere.

Boynton, John O., "Tourist Research in Florida," Proceedings of the 1965 Annual Travel Research Conference, pp. 53-60. Travel Research Association, 757 Third Avenue, New York, N. Y. 10017. 87 pages. \$5.00.

Coverage: Dr. Boynton is Director of both Research and Planning at the Florida Development Commission. In this paper he outlines the work of the Research Department and discusses some of the Commission's promotional activities.

Scope: The Department of Research operates with a budget of about \$100,000. It reports to the Tourist Division of the Development Commission which has a budget of about \$1.6 million. Important work in data-gathering and promotion is also done by the Florida Travel Council. This is a voluntary organization primarily sponsored by the State Chamber of Commerce. Its membership includes most of the managers of local Chambers of Commerce, the promotional arm of the power companies, the railroads, and the Florida Hotel and Motel Association.

Surveys of tourists traveling by car--some 83% of the total number of visitors--are conducted at the nine welcome stations at the Florida border. The airlines serving Florida conduct in-flight surveys and one employee of the Development Commission surveys passengers entering and leaving Florida by bus and rail. The State Road Department maintains 75 permanent mechanical counters on all U. S. highways entering Florida, and places counters for a week at a time on the 34 state roads, at the request of the Development Commission. By means of periodic counts the percentage of total visitors who move by road has been established.

Boynton believes that unless approximately one-third of the total tourists are first-time visitors to Florida, the overall tourist business will not remain as healthy as he would like to see.--"There is a pretty heavy mortality among repeats. They get too old to travel; or they change their vacation diet and pick some other place to go." (pp. 54-55) 87% of all winter visitors are repeats, while 67% of all summer visitors are repeats.

About 1961 the Commission adopted the policy of spending the largest part of its space advertising budget in those areas from which the largest number of tourists come to Florida. This included areas where substantial numbers had previously been coming from with practically no advertising, such as California where over 300,000 visitors come from annually.

The Commission's studies indicate that, for each dollar of advertising, some \$68 accrues to the general revenue of Florida. This information has enabled the Commission "to tell our Legislature what the return is to the State. It

is because we have been able to tell them that and prove it that we have very little trouble in getting the . . . (\$1.6 million) budget." (p. 55). However, only 16% of all tourist cite paid advertising as the cause of their trip.

Since 1963, the state has developed a "Sun Host" program. This involves bringing gasoline station operators to Tallahassee for an indoctrination course on Florida's tourist facilities, and taking them on a week-long tour of the State. The gasoline station operators are then given a placard and decal indicating that they are Sun Host representatives. They distribute literature and information to motorists, describing the full range of the State's attractions.

Local motel and hotel operators and Chambers of Commerce are supplied with monthly destination charts showing where the people coming into Florida were heading. They are also given six month and annual summaries. This ensures their cooperation with the Commission and that they are well informed of local trends.

Most research undertaken by the Tourist Division is highly pragmatical. "In Florida our research is very little theoretical. We measure. We count. We are able by virtue of being a peninsula state to do some things that our good friends in other areas of the country can't do." (p. 56.)

Florida Development Commission, Annual Report 1965. 1966. Tallahassee, Florida 32304. 37 pages. Free.

Coverage: While the Annual Report gives only brief outlines of the Development Commission's promotional program, these are useful in suggesting possible approaches to advertising and promoting a tourist area. The 1965 Annual Report sketches in the promotion which the Commission staged in cooperation with the Florida Citrus Commission in four leading Toronto Department Stores, the performance of two trained porpoises flown from Marineland of Florida to Milwaukee, the tours of Florida for 15 World's Fair hostesses, and the Sun Host program discussed in the review of Dr. Boynton's paper to the 1965 Travel Research Conference.

Annual Report of the Florida Development Commission, Cont'd.

The promotional efforts of the Florida Pavilion at the New York World's Fair in 1964 and 1965 are outlined. These would be of interest to other states thinking of participation in similar fairs, such as Montreal's "Exo '67." The work of the Tourist Division in providing welcome stations and the Florida Sun Coach--a mobile display which is sent to national trade and travel shows and to such events as the Indianapolis 500, the Kentucky Derby and the U. S. Open Golf Tournament--are also outlined.

A brief account is given of special cultural events, staged by the Cultural Arts Department of the Development Commission and of the exhibits which the state arranges in Florida's major market areas.

ErDOS and Morgan Associates. Travel Patterns: A National Geographic Travel Survey. 1964. National Geographic Magazine, Washington, D.C. 20036. 33 pages. No price given.

Coverage: Reports results of a dual sample survey comparing recent travel behavior of National Geographic subscriber families with families having listed telephone numbers. Includes a technical appendix explaining the sampling procedure. A copy of the questionnaire is included in the report package.

Scope: Two random samples of 5,000 households were drawn, one representing all National Geographic households, and the other representing all U. S. telephone households. A primary and follow-up mailing was made, resulting in returns of 78.9% for National Geographic homes and 64.9% for telephone homes. Though only half of the non-respondents to the first mailing were sent a follow-up mailing of the same material, the characteristics revealed by the respondents to the follow-up mailing were projected over the remaining non-respondents. Because of the differences between respondents and non-respondents, especially in income, the non-respondents were weighted into the final tabulations. The standard error and "t" values reported show the data to be statistically reliable.

As might be expected, National Geographic households are excellent prospects for travel advertising. This survey stands out from most media research in its objectivity and attention to statistical niceties.

Bossemeyer, James L., Editor, and NATO staff. Travel U.S.A. Handbook. 1965. Published annually. National Association of Travel Organizations, 900-17th Street, N.W., Washington, D.C. 20006. 542 pages. \$15.00.

Coverage: This is a practical handbook designed for the use of overseas and domestic travel agents promoting tourist visits to or in the U.S.A. Its prime interest to the research worker in tourism and recreation is in suggesting those attractions which are promotable and attractive to tourists or recreationists. Some of these are far from obvious. Examples include a tour of a cheese factory in Oregon, a corn palace in South Dakota, and a visit to a brewery in Utica, New York. The handbook also contains extensive address lists of firms and organizations connected with the tourist/recreation industry in the U.S.A. which could be useful in undertaking promotional schemes, developing tours to a newly-established recreation area, etc.

Scope: The handbook opens with an overall account of "what to expect and see" in the U.S.A. which is designed for overseas use. The bulk of the handbook consists of a state-by-state description of tourist and recreation attractions, major 1965 events of interest to the tourist, and sources of local information (e.g., local convention and visitors bureaus). Later sections deal with modes of travel in the U.S., accomodation services (including some which are unusual, e.g., those provided by the Dude Ranchers Association in the West), advertising and public relations services, etc.

SECTION 4

MULTIPLE USE

John F. Shanklin. Multiple Use of Land and Water Areas.

Hugh A. Johnson. Private Enterprise in the Development of Outdoor Recreation.

New Hampshire State Planning Project. Baker River Watershed Development Potential.

Bruce E. Stewart. Recreational Use of Private Land in an Portion of Eastern Maine.

Shanklin, John F., Multiple Use of Land and Water Areas, ORRRC Study Report 17, 1962. Superintendent of Documents, U. S. Government Printing, Washington, D. C. 20402. 41 pages. 35 cents (must accompany order.)

Coverage: The primary purpose of this report is to define multiple use and to examine its nature. The report gives an historic and legislative treatment of multiple use by various Federal, state and private agencies. It is written at a somewhat general level and includes few specific examples of multiple use in practice.

Scope: The core of this report is a 15-page essay on multiple use by Mr. Shanklin. In this essay a number of explicit and implicit definitions of multiple use are examined. The author finds two general schools of thought: "one, that multiple use is a system of management, and two, that multiple use is a concept of management." (p. 2) He concludes that "multiple use is not a system of management, but is a concept of management." (p.3)

He then examines multiple use as practiced by the National Forest Service, the Bureaus of Indian Affairs, Sport Fisheries and Wildlife, Land Management, and Reclamation. He also outlines the work of the Corps of Engineers and the National Park Service in multiple use management, together with a number of state and private agencies.

The author concludes with a series of recommendations for the multiple-use management of public lands in the public interest. He finds that the law of diminishing returns applies to multiple use projects in that overmanagement can have as detrimental effect on natural resources as no management. He states: "Multiple use is not a complete panacea. Our lands and resources will only stretch so far." (p. 15)

Twelve pages of this report are devoted to prepared statements by the Federal, state and private agencies mentioned above. These statements were made as an explanation of agency policy and as a comment on Mr. Shanklin's essay. They are very useful to the researcher who is examining the impact of Federal policies on recreation and regional development.

Johnson, Hugh A., Private Enterprise in the Development of Outdoor Recreation, discussed by Mc.Connen, Richard J. Papers delivered at the Proceedings of the Committee on the Economics of Water Resource Development, Reno, Nevada, August 1962. Mimeographed manuscript. Obtainable from the University of Nevada, Max C. Fleischmann College of Agriculture, Reno, Nevada 89507. 25 pages. Free.

Coverage: Mr. Johnson, of the U. S. Department of Agriculture, discusses the nature and demand for outdoor recreation. He then weighs the role of private and public enterprise in serving this demand. Many of his findings are based on survey work undertaken for the Outdoor Recreation Resources Review Commission. Mr. Johnson compares the nature of the study design for ORRRC Report 11, or which he was co-author, and ORRRC Report 20, both of which are concerned with the demand for outdoor recreation.

Scope: Mr. Johnson emphasizes the fact that there is a striking geographical imbalance between the geographical distribution of outdoor recreation opportunities and the demand for them. The problem is not so much one of acres of land available for recreation, but effective acres of land available to the public which are usable for specific types of recreation. Access problems mean that many acres of land theoretically available for recreational use are open to very few people. Difficulties of access may be due either to remoteness or to encirclement by land in private ownership. The most promising solution lies in management policy, in the broadest sense. Management policy would include legislative and administrative decisions as to how public resources should be used and decisions on private investment.

R. J. Mc.Connen of the National Forest Service provides an interesting discussion of the Johnson paper. He defines economic "development," and discusses the objectives of economic growth. He emphasizes the fact that the "development of opportunities for outdoor recreation alone will not automatically guarantee the presence of a consumer with an effective demand. Economic growth depends on effective demand, not on opportunities for outdoor recreation." (p. 35)

Mr. Mc.Connen offers a penetrating discussion of the "multiplier effect" in determining the economic impact of recreation on an area. He states that "the consumer expenditures and the multiplier effect may be of limited value in determining the economic impact on a community as opposed to a geographic area." (p. 36) He questions whether growth based on increased consumer expenditures for recreation has a desirable effect on the communities involved. He emphasizes that the demand for outdoor recreational opportunities will be highly seasonal and requires a relatively high intensity of seasonal human activity. He points out that "a large portion of businesses catering to the demands of the outdoor recreational consumer are, at best, economically marginal." (p. 38)

New Hampshire State Planning Project. Baker River Watershed Development Potential (Report No. 1 of The New Hampshire State Planning Project). 1964. New Hampshire State Planning Project, State Offices, Concord, N.H. 51 pages. Free.

Coverage: This is a study of the topography, population, traffic flow, economy, and development potential of the 214 square mile Baker River Watershed area in Grafton County, New Hampshire, a Federally-designated Area Redevelopment Region. Special emphasis is placed on the vacation travel business aspects of the multipurpose flood control plan currently being implemented in the watershed. It is, therefore, a useful prototype for other studies of multiple purpose projects.

Scope: Detailed information necessary for understanding and planning the development of the watershed area is presented, including:

- Average annual traffic flow map for an extensive surrounding area
- Seasonal and daily variations in traffic counts on the watershed's main road
- Census of permanent and seasonal population
- Employment census, by industry, including tourist-oriented businesses
- Family income distribution
- Inventory of lodging places, and peak winter and summer capacity
- Children's camps capacity
- Assessed value and percent distribution of property used for seasonal homes, other recreation uses, farms, manufacturing, homes and businesses
- Inventory of recreation facilities and attractions
- Visitor counts and estimates at tourist recreation facilities and attractions.

The following development potential factors as they apply to the watershed area are discussed, but not quantified:

- Planned Interstate Highway construction to the area and local road improvement
- Increased enrollment at the State College branch located in the watershed
- New consolidated school district
- Industrial expansion, population growth, improved farming and forestry
- Multipurpose Baker River flood control project.

After considering these factors, and the problems facing

the watershed area, the report concludes that "The greatest potential for future economic development...is in the field of outdoor recreation and vacation-travel business". (p.32) Some suggestions are given of ways to expand the area's recreation business by catering to the motorist, hiker, sightseer, winter-sports enthusiast, and camper.

Primary attention is given, however, to the 14 flood control reservoirs to be built in the project, of which 6--totaling 326 acres--will be developed to include public facilities for boating and swimming. Total cost of the project is estimated at \$4,136,537 of which the lion's share will be paid by the federal government as authorized by the Small Watershed Protection and Flood Control Act of 1954, P.L. 566, as amended. The report contains individual preliminary analyses of recreational development feasibility at the dam sites, along with estimated cost breakdowns and maps of the proposed development.

Stewart, Bruce E., Recreational Use of Private Land in a Portion of Eastern Maine, 1963. Maine Agricultural Experiment Station, University of Maine, Orono, Maine 04473. Free.

Coverage: This study was conducted to investigate the recreational use of private land and roads in a portion of Eastern Maine. It attempts to determine both the opinions of recreationists and landowners with respect to roads, facilities, and management. Representatives of state agencies concerned with the recreational use of private land were also canvassed.

Scope: The study revealed that the majority of recreationists sampled were satisfied with roads, recreation facilities and land management at present, and were willing to pay small fees for their improvement in the future. Hunters, however, were less willing to pay fees and were more critical of land management practices. Landowners, aware of the problems accompanying the recreational use of private land, were tolerant of this use, but did not want to commit themselves to extensive recreational development plans. The representatives of state agencies felt that more recreational facilities and certain road improvements were required and that the public needed to be educated in the proper use of private land.

Comment: There were many sampling problems, as the author readily admits. The question is whether these problems are so serious as to discredit the reported results. The author who used a sample of 276 respondents, felt that a larger sample would have enabled greater confidence to be placed in his data. No multifariate analysis by socio-economic level was possible.

SECTION 5

COST - BENEFIT ANALYSIS

A. R. Prest and R. Turvey. "Cost-Benefit Analysis: A Survey".

M. S. Feldstein. "The Social Time Preference Discount Rate in Cost-Benefit Analysis".

Area Redevelopment Administration, U. S. Department of Commerce.

Determination of Area Redevelopment Benefits from Water Resource Projects.

Ruth P. Mack and Sumner Myers. "Outdoor Recreation".

A. H. Trice and S. E. Wood. "Measurement of Recreation Benefits".

James A. Crutchfield. "Valuation of Fishery Resources".

S. V. Ciriacy-Wantrup. "Benefit-Cost Analysis and Public Resource Development".

Coverage: This excellent article provides an overview of the theory of benefit-cost analysis, and the application of this method to a wide variety of decisional problems. It includes one page on the use of benefit-cost analysis in assessing recreation projects. The 90-item bibliography of sources, contained in the article, should prove helpful to a person interested in any aspect of benefit-cost analysis.

Scope: Perhaps the best way to indicate the depth of this article is to reproduce, with a few comments, the outline form which the authors use to organize their treatment of the subject.

I. Introduction (history and general description of benefit-cost analysis).

II. General Principles

1. Preliminary Considerations

- a. Statement of the Problem (4 questions which must be answered).
- b. A General Issue (problems of using a single rate of time discount).

2. The Main Questions

a. Enumeration of Costs and Benefits.

- i. Definition of a Project.
- ii. Externalities (technical and pecuniary "spillovers" from a project).
- iii. Secondary Benefits (distinguishes "stemming" and "induced" secondary benefits, and argues against the imputation of extra-market values).
- iv. Project Life.

b. Valuation of Costs and Benefits.

- i. The Relevant Prices (adjusting relative prices)
- ii. Nonmarginal Changes (problems caused when projects are large enough to affect prices).
- iii. Market Imperfections (monopolistic elements and other imperfections may distort prices

- away from real social costs, requiring adjustments.
- iv. Taxes and Controls.
- v. Unemployment (suggests that only local unemployment be adjusted for in project analysis).
- vi. Collective Goods (problems of valuing goods which are not capable of being marketed).
- vii. Intangibles (some costs and benefits are not capable of quantification).

c. Choice of Interest Rate.

- i. The Social Time Preference Rate (defines and points out some conceptual problems of using this rate for benefit-cost analysis).
- ii. The Social Opportunity Cost Rate (the rate of return on alternative investments that could be made but for a given investment).
- iii. Adjustment for Uncertainty (three methods of making such adjustments).
- iv. The Need for an Interest Rate.
- v. Principles vs. Practice (these theoretical considerations have had little effect on practice).

d. Relevant Constraints.

- i. Introduction.
- ii. Distributional Constraints (benefit-cost analysis is blind to the distribution of incomes, but this must be considered in project analysis).
- iii. Budgetary Constraints (how to incorporate them into investment criteria).

3. Final Considerations

- a. Investment Criteria (four criteria, expressed verbally and algebraically, are the equivalents of the maximum present value of net benefit).
- b. Second-best Matters (only when nonoptimization in the economy yields obviously biased measures of benefits and costs should corrections be attempted).

III. Particular Applications

1. Water Projects
 - a. Irrigation.
 - b. Flood Control.
 - c. Hydro-electric Power Schemes.
 - d. Multiple-purpose Schemes.
2. Transport Projects
 - a. Roads.
 - b. Railways.
 - c. Inland Waterways.
3. Land Usage
 - a. Urban Renewal.
 - b. Recreation (one page stating the problem of measuring and valuing the recreational gains or losses due to projects. Brief description of the Trice and Wood Method.)
 - c. Land Reclamation.
4. Health
5. Education
6. Other Fields

IV. Conclusions.

Feldstein, M. S., "The Social Time Preference Discount Rate in Cost-Benefit Analysis," The Economic Journal, Vol. LXXIV, June 1964, pp. 360-379.

Coverage: When it becomes necessary to choose between time streams of benefits and costs with different durations and profiles, it is convenient to assign a single present value to each time stream by "discounting" it with some "interest rate." This article discusses the theoretical and practical problems of selecting the proper interest rate.

Scope: A shortened version of the author's own summary best describes this article:

1. The interest rate, even of a perfect capital market, would be unsuitable for evaluating public investment projects.
2. A social time preference (S.T.P.) rate, reflecting the Government's judgment of the relative social utility of consumption at different points in time, should be used.
3. Fisher's indifference curve analysis shows the properties of the S.T.P. function and its relationship with the S.T.P. rate.
4. A useful ex ante estimate of the S.T.P. rate can be made.
5. The S.T.P. rate may vary through time.
6. Public investment decisions must also reflect the social opportunity cost (S.O.C.) of funds; this is best done by using a shadow price that reflects social time preference and the productivity of funds in private investment.

Area Redevelopment Administration, U.S. Department of Commerce.
Determination of Area Redevelopment Benefits from Water Resource
Projects. 1964. U.S. Department of Commerce, Washington, D.C. —
20230. 10 pages. 10 cents.

Coverage: The stated purpose of this pamphlet is "to provide an initial basis for quantifying redevelopment benefits from water-resource projects in...(A.R.A.)...redevelopment areas...in addition to the direct project benefits ...normally considered." The suggestions made are based on the A.R.A.'s interpretation of Presidential and Congressional policy as enunciated in Senate Document No. 97, 87th Congress, 2^d Session, 1962.

Scope: The innovative part of this pamphlet is its suggestion of a formula for incorporating directly-induced and secondary benefits of a water-resource project into the benefits-cost calculus. The A.R.A. summarizes this formula as follows:

1. Credit the project with between 7 and 20 percent of the wage payments in the directly-induced industrial activity. The figure selected would depend on the economic adjustment capability of the areas with which the affected industry would compete.
2. Credit the project with benefits arising from increased employment in secondary industries, up to about 50 percent of the wage benefits calculated for the directly-induced industrial activity.
3. Credit the project with benefits from the utilization of idle resources, other than labor, equal to 5 percent of wage benefits calculated for the directly-induced industrial activity.

Unfortunately, the pamphlet is confusingly vague about the source and theoretical justification for these suggested percentages. The phraseology of the pamphlet, which links the "expansion of secondary activities" with project "wage benefits," leads one to infer an implicit reference to the "multiplier effect" familiar from elementary economics textbooks.

This pamphlet could profit from a clarification of the percentage-attribution method, and an elimination of ambiguous overuse of the word "benefit."

Mack, Ruth P., and Myers, Summer, "Outdoor Recreation", in Measuring Benefits of Government Investments. R. Dorfman, ed., The Brookings Institution, Washington, D.C., 1965. 429 pages. \$2.50

Note: Only pp. 71-116 are reviewed here.

Coverage: The authors first investigate various suggested money measures to see if recreational benefits can be given dollar prices, and conclude that such money measures do not measure, or uncover and focus debate on certain important aspects of recreation benefit. The authors, therefore, suggest calibrating recreational benefit directly along a utility scale in "merit-weighted user-days".

Scope: The authors identify three types of utility in outdoor recreation experiences: immediate enjoyment, long-term benefits for the individual, and benefits to the nation as a whole. The market place is said to be unable to assign meaningful prices to outdoor recreation; consequently, three indirect approaches of valuation are summarized. The fundamental notion of these procedures is that the average value of public outdoor recreation can be imputed from average expenditure per unit of time spent on analogous recreational experiences. Using these methods, a magic figure of 30 to 35 cents per average person hour of average outdoor recreation reappears several times. Because of "omitted values", however, this price is defective for making intra-program decisions.

Simple user-days of recreation would be too crude a measure to be useful as a guide to decision. The authors, therefore, set about devising a system of weights based on 14 performance criteria for government action in the field of outdoor recreation:

1. Conservation .
2. Policy with respect to providing recreation where the public supply price is markedly lower than the private supply price.
3. Government provision of recreation as a method of setting private standards .
4. Encouraging private recreation .
5. Charging a total or partial price for some sorts of recreation to, perhaps, some sorts of people .
6. Public provision of a modest, but adequate standard for people unable to pay for it.
7. Maintenance of a designated standard of care for grounds and equipment.

8. Development of recreational facilities and program as a method of expanding and deepening use.
9. Physical standards of use and adequacy.
10. Maintenance of a well-conceived and well-balanced variety of recreation facilities.
11. Geographic distribution of areas with respect to accessibility for after work, weekend, and vacation use.
12. Distribution of ages, education, and previous experience.
13. Distribution of income.
14. Meeting the requirements of the future.

A brief example is given to illustrate the sort of merit-weighting that the authors envision. However, they use only gross measures of inter-regional equity, such as population and per capita income, to decide which of three hypothetical parks would draw the optimum mix of visitors from five hypothetical residential areas. The example is interesting, but does little to illustrate the practical usefulness of the suggested 14 points.

The idea that outdoor recreation is bound up with intangible or non-monetizable values, and hence cannot appropriately be valued in the market place, has been vigorously disputed by other writers.* However, the contention that there is presently no market mechanism which actually does value outdoor recreation at what is generally considered its full social value, is beyond question.

* E.g., Hines, L. G., "Measurement of Recreation Benefits: A Reply", Land Economics, Vol. XXXIV, No. 4, Nov., 1958, pp 365-367. Contra, Trice, A.H., and Wood, S.E., "Measurement of Recreation Benefits", Land Economics, Vol. XXXIV, No. 3, Aug., 1958, pp 195-207, at p 197.

Coverage: After stating the problem, and distinguishing between "primary" and "secondary" recreation benefits, the authors describe two methods currently being used to value recreation benefits which they believe to be unacceptable. They suggest a third method, based on the travel costs to a recreation project.

Scope: One of the rejected valuational methods is based upon expenditures made by users of recreation facilities, and the other is based upon the costs of providing recreation facilities.

The recommended travel cost method involves an analysis of the points of origin of visitors to a given recreation area. Such visitors are then grouped geographically into time-distance zones around the recreation area. The average costs of travel for each such group are multiplied by the number of potential users within each zone. Those visiting the recreation area from the most distant zones (e.g., the most-distant 10% of visitors) define a "bulk-line" or boundary value of the recreation provided by the particular recreation area. Having determined the market value in this way, it is possible to compute the free value (consumers' surplus) of recreation provided to those who do not have to travel so far.

The authors used this method in determining the value of a recreational day in the Upper Feather River area of California's Sierra Nevada mountains. They calculated an average consumer surplus of about \$2.00 per visitor day.

Comment: This seminal article was followed in the November 1958, issue of Land Economics with two spirited "replies" and a "rejoinder" which help to clarify the travel-cost method. They can be found in Vol. XXXIV, No. 4, pp. 365-370.

Three years later, Land Economics published a report of the application of the travel-cost method to the state of Wisconsin by Donald F. Wood, in Vol. XXXVII, No. 4, November 1961, pp. 363-369. This article makes the interesting observation that "by giving weight to those having time and money to travel one may be slighting the obligation of government to provide recreation facilities for those having less time and money."

Coverage: The author investigates the problem of assigning monetary values to sport fishing which could be used confidently in benefit-cost analysis, but does not provide an answer. Four invalid techniques are, however, identified and discussed.

Scope: The essential problem is not the intangibility of fishing benefits, but rather the traditional free accessibility or underpricing of fishing rights. The fact that license restrictions and creel limits must be enforced with the police power conclusively demonstrates that fishing rights are underpriced.

Crutchfield identifies the following invalid approaches to the question of valuing fishing rights:

1. The argument that no monetary values can or should be attached to sport fishing;
2. The assumption that the value of fishing activity is equal to the cost of generating it, or to some fixed multiple of such cost;
3. The imputation to sport fishing of the commercial market price of the fish caught;
4. The application of a flat hourly value of leisure (calculated from Gross National Product) to the time spent by sport fishermen in their hobby.

Crutchfield also criticizes the Trice and Wood travel-cost technique, and finds practical difficulties in its application. Travel-cost methods must also lump together all recreational benefits offered by a particular area, thus making the separation of fishery benefits impossible. Crutchfield suggests a survey of the sport fishermen themselves, but warns of bias in the answers given. He finds a most urgent need for reasonably accurate estimates of the actual amount of sport fishing effort in both man-days and numbers of individual participants. In addition, the experimental use of differential fees may yield a measure of the value of fishing rights.

Ciriacy-Wantrup, S.V., "Benefit-Cost Analysis and Public Resource Development," Economics and Public Policy in Water Resource Development, Iowa State University Press, 1964, pp. 9-21.

Coverage: Assays the role of benefit-cost analysis in government decisions, and suggests that eliminating indirect or secondary benefits in making project selection decisions may increase both the economic validity and the political influence of this method.

Scope: Professor Ciriacy-Wantrup believes that benefit-cost analysis by governments is worthwhile despite its weaknesses, risks of abuse, and relatively small direct influence upon events. Two principle reasons are that benefit-costs analysis 1) restrains the abuse of economic arguments in the political process, and 2) stimulates further scientific understanding of the physical and social problems involved in public resource development.

The author goes on to state that the appropriate measure for project selection is found in national accounts, which exclude transfer items such as the relocation of induced economic activities in the project region. Regional, industrial or occupational accounts, which would of necessity include such transfer items, are considered by Ciriacy-Wantrup to be most useful in determining the possibilities of repayment to the government by project beneficiaries.

SECTION 6

FEASIBILITY STUDIES

Hare and Hare. Recreational Potential of Sam Rayburn Reservoir.

Hudgins, Thompson, Ball and Associates. Eastern and South Central
Oklahoma Recreation and Tourism Study, Volume 1.

Hudgins, Thompson, Ball and Associates. Eastern and Central
Oklahoma Recreation and Tourism Study, Volume 2.

Hare and Hare. Recreational Potential of Sam Rayburn Reservoir. 1965.

Hare and Hare, Planners, Landscape Architects and Consulting Engineers, 114 West Tenth Street, Kansas City, Missouri 64105. 84 pages. \$10.00 Also available free on interlibrary loan from U.S. Department of Commerce Library, Washington, D.C. 20230.

Coverage: This report examines the recreational potential of a major flood-control reservoir recently constructed by the Corps. of Engineers. It also measures the economic impact of tourists and others using the recreation facilities to be provided on the reservoir. The Sam Rayburn Reservoir is located in an economically-depressed area of Southeastern Texas.

Scope: This report is of general interest to anyone about to make a feasibility study for a resort or major recreational attraction. To a lesser degree, the report would be of interest to someone wishing to make an impact study for a resort or a similar attraction.

The report discusses some of the problems attached to the multiple use of water bodies. The Sam Rayburn Reservoir was primarily built for flood control. The generation of electricity is next in importance, while encouraging tourism is its least important function. An example of the problems created by this typical order of priorities is the considerable vertical range of the water surface. This could be as great as 29 feet. Pollution of the dam from a nearby paper mill is another difficulty. The report discusses the question of setting up water quality standards in some detail (Section IV of the report). This report computes the size and nature of the market for the recreational facilities to be built at the Reservoir in terms of driving time - distances of 1 hour, 2 hours, 3 hours and 4 hours driving time. Next it fits the geographical pattern of counties into these time-distance zones insofar as this is possible. Using the 1960 U.S. Census, the report next establishes the age and income levels of people living in these counties. From this analysis the report is able to quantify the number of persons in a wide range of socio-economic groupings who live within either 1, 2, 3 or 4 hours driving time of the Sam Rayburn Reservoir.

The report makes very skillful use of the studies published by the Outdoor Recreation Resources Review Commission, particularly Report No. 19 (National Recreation Survey). By applying the participation rates established by the ORRRC to the various socio-economic groupings within the 4 hour radius, the report is able

to estimate the number of days per year on which certain facilities will be used. An example is the number of days per year on which water-skiing will occur and the number of people who will want to water-ski. Similar estimates were made for boating, horseback riding, hunting, etc. The report also calculated the demand for day outings, for weekend trips and for vacation trips. Finally, each county within the outermost driving zone (4 hours distance), is examined to establish the nature of its future socio-economic levels and its future population. The results derived from the 1960 Census are tempered in the light of this analysis, and "best judgment" estimates of recreational participation at the Sam Rayburn Reservoir are made for 1974 and 1984.

The report also discusses the potential competition from the Texan Gulf Coast and its effect on the geographical extent of the Sam Rayburn Reservoir's market.

There seems to be no reason why many of the concepts and methods used in this report could not be readily applied in other parts of the U.S.A.

Note: This report is also available from the Clearinghouse for Federal Scientific and Technical Information, U.S. Department of Commerce, Springfield, Virginia 22151, under the title of Public and Private Recreational Potentials on Perimeter of Sam Rayburn Reservoir, Angelina, Jasper, Nacadoches, Sabine and San Augustine Counties, Texas, Price \$4.00.

Hudgins, Thompson, Ball and Associates. Eastern and South Central Oklahoma Recreation and Tourism Study, Volume 1. 1965. Bureau of Indian Affairs, Department of the Interior, Muskogee, Oklahoma 74401. 93 pages. No price given.

Coverage: This volume, the first of two, contains three sections: 1) recreation and tourist potentials, 2) a recreation-tourist development plan and program, and 3) proposed development projects.

Scope: Section 1--Recreation and tourist potentials

- A. Resources and problems; a general discussion of the area's five major resource groups: water areas, Indian cultural features, other historical and cultural centers, scenic and geologic areas, and activities and events.
- B. Markets and other factors influencing future development: includes a general discussion of local, regional and national trends, and tables showing as "recreation indicators" relevant trends in population and median incomes, licenses issued for hunting, fishing, etc. In 1962 other tables present historical visitor-utilization figures for state and federal parks and Corps. of Engineers reservoirs in the area. During 1963, a detailed out-of-state passenger car study was conducted by the Oklahoma State Highway Department. From that study, the following information is presented in tabular form:
 - Number and origin of out-of-state passenger cars, 1953 and 1963
 - Number of vehicles and persons, by reason for being in Oklahoma, 1963
 - Prime Oklahoma attractions, 1953 and 1963
 - Type of accommodations used and expenditures by out-of-state vehicles, for Oklahoma destination and through traffic, 1963
 - Lodging expenditures by type of lodging, for Oklahoma destination and through traffic
 - (Some data comparable with the latter four categories, taken from the earlier 1953 Tourist Study, are given).
- C. Future outlook and conclusions: Growth projections of regional populations, out-of-state passengers car visits, and major reservoir user-visits are made to the year 2000. These projections are contingent on certain courses of "action on six levels" to develop and promote recreation and tourist facilities.

Section 2--Recreation and Tourist Development Plan and Program

- A. Identifies ten recreation areas within the Eastern and South Central Oklahoma region, and for each area gives 1) major attraction, 2) supporting facilities and attractions, 3) access to the area, 4) circulation within the area, and 5) an assessment of the major planning and development action needed.
- B. Outlines the basic roles and responsibilities of Federal, State, local and Indian authorities, and of certain individuals.

Section 3--Proposed Development Projects

Five major projects and six supporting projects are recommended and presented. The format used for each is as follows:

- 1. Project description
 - A. Conceptual idea
 - B. Location and land area requirements
 - C. Relationship to tourist area
 - D. Required facilities
- 2. Development plan and program
 - A. Operation
 - B. Plan
 - C. Cost estimates
 - D. Sources of funds
 - E. Timing
 - F. Supporting developments required
- 3. Feasibility
 - A. Market potentials
 - B. Income sources
 - C. Profitability
 - D. Other benefits

Hudgins, Thompson, Ball and Associates. Eastern and Central Oklahoma Recreation and Tourism Study, Volume 2. 1965. Bureau of Indian Affairs, Department of the Interior, Muskogee, Oklahoma 74401. 179 pages. No price given.

Coverage: This volume contains four appendices to Volume 1; they deal with a) Existing and Potential Tourist Attractions, b) Tourist Caves in Oklahoma, c) Indian history, culture, population and their economic situation, and d) a bibliography.

Scope: The appendix on existing and potential tourist attractions is essentially a county-by-county inventory of the 42 counties in the study area. The following format is used for each county:

1. Physical description
 - A. Topography
 - B. Climate
 - C. Water resources
 - D. Wildlife
 - E. State facilities.
2. Advantages and/or disadvantages of the county for recreation.
3. Major recreation and tourist attractions and events, existing and under development.
4. Major proposed recreation and tourist developments.
5. Other existing and proposed recreation and tourist developments.

SECTION 7

SPECIFIC TYPES OF OUTDOOR RECREATION

- I. V. Fine and E. E. Werner. Juvenile Camps in Wisconsin.
Federal Reserve Bank of Boston. New England Camping Report.
Ed. Joan F. Leonard. Ski-Faring Guide to Ski Areas and Lodging.
New Hampshire State Planning Project. Travel Habits of the
Motorist in New Hampshire.
- Department of Conversation, School of Natural Resources, The
University of Michigan. Hunting in the United States--Its
Present and Future Role.
- U. S. Department of The Interior, Fish and Wildlife Service, and
Bureau of Fisheries and Wildlife. National Survey of Fishing
and Hunting.
- I. A. Fine and E. E. Werner. Economic Significance of Hunters in
Wisconsin.
Bureau of Sport Fisheries and Wildlife, U. S. Department of the
Interior. Sport Fishing--Today and Tomorrow.
- I. V. Fine and E. E. Werner. Camping in State Parks and Forests
in Wisconsin.
New England Family Campers Association and the Northeast Campground
Owners Association. Selected Proceedings of the First Annual
Eastern Conference on Camping Areas.
- New Hampshire State Planning Project. The Privately-Owned Camp-
grounds of New Hampshire.

Fine, I. V., and Werner, E. E., Juvenile Camps in Wisconsin. Wisconsin Vacation-Recreation Papers, Vol. 1, No. 3, 1960. Bureau of Business Research and Service, School of Commerce, University of Wisconsin, Madison, Wisconsin 53706. 16 pages. Free.

Coverage: Reports on a mailed questionnaire survey of 271 day and summer camps in Wisconsin, made in 1959. 226 replies were received, representing 84.5% of the universe sampled. The replies enabled a series of general conclusions to be drawn relating to the origins of juvenile campers, levels of camp occupancy, facilities offered, and various financial aspects of the camps.

Scope: Two basic types of camp are found in Wisconsin: those operated by private individuals or organizations for profit, and those operated by tax-exempt organizations such as Scout Camps, Church camps, etc. "The tax-exempt camps are more nearly local in character and draw two-thirds of their patronage from within the state boundaries . . . such camps typically secure a substantial portion of their financial support from the local groups with which they are affiliated, such as Scout Councils, Churches, and similar organizations." (p.4)

During 1959 the private camps operated at 89.4% occupancy and the tax-exempt camps at 74.0% occupancy. Only half of each category of camp did any advertising--heavy reliance was placed on word-of-mouth recommendation and the practice of sending children to the same camp over a number of years. Consequently long-run success depended on rapidly establishing a sizeable clientele once the camp opened for business.

Gross receipts of the camps during 1959 averaged \$42,625 for the private camps and \$15,315 for the tax-exempt camps. The information gathered suggested that the 271 camps contributed \$6,300,000 to the vacation-recreation segment of Wisconsin's economy.

Federal Reserve Bank of Boston. New England Camping Report. Monthly issues 1947 to the present. Back numbers out of print, on file at Federal Reserve Bank of Boston, 30 Pearl Street, Boston, Mass. Current issues available at same address. Free.

Coverage: Monthly reports of a sample survey of camp proprietors in the six New England states. From January until the beginning of the tourist season the reports show percentage change in advance registrations over the previous year for "private" and "agency" camps in each of the vacation regions within the states. During the season, the figures reported indicate percentage change in occupancy. In a separate table, the percentage changes in geographic origins of camper reservations is reported. Also included are comments on business conditions by camp proprietors.

Scope: Raw percentage change figures, calculated by adding reported numbers of reservations, are published. No attempt has been made to index these changes, as was done in the New England Vacation Business Report.

Although survey reporting is strictly voluntary on the part of respondents, and although there is no way to ensure accuracy of the reports or comparability with previous figures, the response rate appears to be satisfactory for the purposes of the series, so it is being continued. By concentrating on advance reservations and the origin of campers, the series has more relevance to the camp proprietors than would a simple reportage of historical occupancy figures such as the Vacation Business Report was. Consequently, a much higher response rate was achieved.

Ed. Joan F. Leonard, Ski-Faring Guide to Ski Areas and Lodging. Published annually each October by Ski-faring, Inc., 601 N. Fairbanks Ct., Chicago, Illinois 60611. About 200 pages. \$1.00

Coverage: The primary purpose of this guide is to help skiers select their weekend or vacation venue. The 1965 edition listed the majority of all ski areas in 36 states.

Scope: Of considerable value in making a feasibility study of a new ski area, since it lists potentially competitive facilities, with critical information on each. This includes such information as the length of season, maximum vertical drop, lift capacity per hour, lift and rental charges. This will often save extensive field work. Despite considerable efforts to keep this information current, prices quoted are sometimes below those actually encountered.

New Hampshire State Planning Project. Travel Habits of the Motorist in New Hampshire: Part 2 - Winter (Report No. 8 of the New Hampshire State Planning Project). 1965. New Hampshire State Planning Project, State Offices, Concord, N.H. 62 pages. Free.

Coverage: Reports the results of a survey of the travel and spending habits of the New Hampshire skier, conducted February 26, 27, 29, 1964 and March 1, 1964. This is a companion-piece to Report No. 5, which surveyed summer motorists.

Scope: 10,300 mail-back questionnaires were distributed to motorists as they entered the parking lots of 7 selected ski areas on the survey days. The areas were chosen as representative of New Hampshire ski areas in geographic distribution, topography, size, and ownership (public or private). By the April 1 cut-off date, 2,744 usable forms were returned. The results are tabulated by absolute number and percent, for each ski area under the following heads:

- Age and sex of driver
- Marital status and education of driver
- Occupation and income group of driver
- Drivers' place of residence
- Motivation to ski particular area (16 possible responses, including facilities, friends or relatives, previous visit, and access time
- Travel time and meal stops en route
- Type of overnight accommodations, length of trip
- Type and amount of expenditures (10 possible responses: meals, room, food, lift, ski school, equipment rental, equipment purchase, amusements, travel, and other), by survey day

Multivariate analysis was made of selected data, as follows:

- Size of party x length of trip x expenditures
- Income group x overnight accommodations x expenditures
- Income group x expenditures
- Place of residence x education x motivation.

The reader is not shown the tabulated results of these cross-analyses, but is informed that "generally...all of the multivariate relationships produced no surprises", with the exception of expenditure-per-day, which averaged 50% lower than that reported in another report (The Skier Market in Northeast North America, Sno-Engineering, Inc., Franconia, New Hampshire). Page 54 states:"The vast amount of data collected...makes impractical any detailed presentation...However...the data is preserved on IBM cards and can be analyzed for special purposes".

Department of Conservation, School of Natural Resources, The University of Michigan. Hunting in the United States--Its Present and Future Role. ORRRC Study Report 6. 1962. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. 117 pages. 60 cents (must accompany order).

Coverage: This study report to the Outdoor Recreation Resources Review Commission discusses many factors relating to the future supply of huntable game--the kinds of game, its location, conditions of the hunter's access to it and so on. It surveys land use changes and their impact on game, the overall hunting picture, and factors influencing the supply of game. It examines the characteristics of the nine study regions.

Scope: The study seeks to identify those trends which have influenced hunting in the past and are likely to influence it in the future.

Land Use Changes

1. The spread of development over formerly rural outskirts of U. S. cities.
2. Upgrading of rural land through improvements such as irrigation and drainage. Conversion of land from forest uses. Return of low quality land to fallow.
3. Extensive use of land by new highways and other transportation uses. The Interstate Program has been especially significant here.

Pesticides

The study points out that a relatively new factor in the environment of wildlife is the widespread use of pesticides. "Most chemical control programs have been undertaken with little or no concern as to what the side effects might be on wildlife population" (p. 10).

Game Habitats and their Management

The report discusses the impact of various agricultural practices on farm, range and woodland game. It also discusses the changing habitat provided by abandoned farms. In the fifth year after abandonment the habitat for game begins to deteriorate rapidly and good management practice calls for an effort to prevent further natural succession. A large amount of statistical in-

formation is provided on the habitats of wildlife game.

Several major issues in habitat management are discussed. The most controversial is whether the National Forest Service or the National Park Service should have the larger territorial area under its protection. Since the Park Service forbids hunting, the hunter's interest lies with the Forest Service.

A number of specific objectives were recommended for State Game Agencies, especially in regard to the role of the state in controlling the supply of game.

The Hunting Picture

As the number of individual hunters increase and available hunting space decreases individuals are brought closer together in their hunting activities. Regulation has also increased. There are many limitations on hunter access to game--the distance from the hunter's home to the game; time that is free for hunting; the quality of the roads that must be used and the roughness of the terrain at the end of these roads. These factors combine to make game relatively inaccessible to the majority of hunters.

Public Land and Hunting

Public land is important to hunters because it provides a habitat for game production and is open to all. After a long history of disposal of the public domain to State and private ownership, national policy entered a reverse trend with the establishment of the national forest and park systems following the creation of the Forest Service in 1905 and the National Park Service in 1916.

In recent years the acreage of hunting land owned or leased by private clubs has increased rapidly. The report emphasizes population growth, increased mobility of hunters and the growth in private land posted against hunting as reasons for this increase. The report recommends the development of commercial shooting preserves, with extended seasons and no bag limit, as a solution to the problem of an inadequate supply of public hunting land.

The Demand for Hunting - Now to 1976

Appendix E contains a discussion of factors affecting the supply of hunters. The report predicts that the intensity of hunting will increase with the growth of the young and middle-aged sectors of the population during the coming decades. However, the proportion of the total adult population who are hunters will decrease.

U. S. Department of The Interior, Fish and Wildlife Service, and Bureau of Fisheries and Wildlife, National Survey of Fishing and Hunting 1960. Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. 73 pages. 50 cents (Must accompany order.)

Coverage: The survey is similar to a National Fishing and Hunting Survey made in 1955. Its purpose is to supply conservation agencies with comprehensive information about hunting and fishing in order to assist these agencies in carrying out their individual restoration, management and other fish and wildlife programs.

Scope: The Survey measures the amount of money and time spent and the number of trips made by American fishermen and hunters while participating in these sports. It classifies these sportsmen according to their chief social and economic characteristics. Classification categories used include the geographical area in which the sportsman lives, the population density in that area, and the age, sex, occupation and income level of these sportsmen.

The report also tabulates:

1. The number of fresh-water fishermen fishing in man-made ponds and reservoirs, in natural lakes and ponds, and in rivers and streams;
2. The number of salt-water fishermen fishing in the surf, in bays and sounds, in tidal rivers and streams, and in the adjoining sea;
3. The number of hunters who hunt for big game, small game, and waterfowl.
4. The number of ducks bagged, and
5. Expenditures on boats, moatmotors and boat launching, automobile expenditures, expenditures on other types of transportation, other trip expenditures, and daily entrance fees.

Also included is a projection of the number of active Fishermen and Hunters in the U. S. A. from 1960 through 1975.

The tables found in Appendix A, very often do not have sources.

Appendix C contains a discussion of the areas of non-comparability between the 1955 and 1960 National Surveys of Hunting and Fishing.

Appendix D discusses the techniques used in making the survey and the differences between total participants and substantial participants in Hunting and Fishing.

Appendix E contains a statistical reliability analysis.

Sampling Method: The Survey was conducted for the Bureau of Sport Fisheries and Wildlife by the Bureau of The Census.

The sample used was a subsample of persons previously selected for the Bureau's Current Population Survey (described in Current Population Reports, Series P-23, No. 5, May, 1958, issued by the Bureau of The Census). Within each of the 333 Population Sample Units (PSU's), the sample consisted of a number of small land areas called segments, each containing approximately six housing units. In determining sample size within each sample PSU, a ratio rather than a fixed quota was employed. The sample thus became self-weighting; that is to say, each person has the same probability of being selected for interviewing.

Approximately 18,000 households containing about 45,000 persons, 12 years of age or older, were selected and visited in the first round of interviewing.

A sample of those identified as fishermen or hunters in the first round was selected for personal interview at a later date. Personal interviews were made with about 6,500 fishermen and 3,800 hunters. This represented 93% of those selected for the detailed interviewing. The remainder had moved, were not at home after repeated calls, or were otherwise not available.

Problems of Comparability Between the 1955 and 1960 National Surveys of Fishing and Hunting

In 1955, the bureau of The Census conducted a similar survey to that made in 1960. However, the 1955 survey used relatively small samples combined with intensive interviews, in order to identify all recreational occasions round the year and the activity in which the interviewee engaged on that occasion.

The 1955 interviews showed a greater number of people participating in sport fishing and hunting than did the 1960 National Survey of Hunting and Fishing. Further analysis of this dichotomy showed that it was caused by interviews of a number of persons in the 1955 study who were only "incidental participants" in these sports. These were primarily unlicensed fishermen who fished only once or twice per year and who spent very little in order to do so. The 1960 study measured only "substantial participants" in these sports.

The difficulties of comparability between the 1955 and 1960 surveys provide an excellent illustration of the problems which arise when poorly-formulated working definitions or no definition is used in measuring participation in a given sport.

Fine, I. V., and Werner, E. E., Economic Significance of Hunters in Wisconsin, Wisconsin Vacation-Recreation Papers, Vol. 1, No. 6, 1960. Bureau of Business Research and Service, School of Commerce, University of Wisconsin, 301 Commerce Building, Madison, Wisconsin 53706. 17 pages. Free.

Coverage: This study was based on 4,189 useable returns to a mailed questionnaire which requested information on the number of hunting trips made in Wisconsin in 1959, the number of nights spent away from home on hunting trips, accommodations used, and expenditures made on both hunting trips and hunting equipment. Other items investigated were the use of boats by Wisconsin hunters, their purchase of fishing licenses, complaints regarding hunting and boating and the socioeconomic status of the hunters.

Scope: The study shows that "the number of non-resident hunters is a negligible proportion of the total number of hunters." (p. 1). Based on license sales by the Wisconsin Department of Conservation, the total number of non-resident hunters in Wisconsin in 1959, some 9,483 persons, was only 1.4% of all licensed hunters in the state that year. This fact is significant in suggesting that relatively little money is brought into the state by hunters. Consequently, in Wisconsin at least, the income redistributing effects of hunting are largely confined to within the state. This is surprising in view of the proximity of major urban areas, such as Chicago and Minneapolis-St. Paul.

The study indicated that hunters spent a total of 3,618,683 nights away from home on hunting trips in Wisconsin in 1959. However, relatively few of these nights were spent in commercial accommodations. "It was apparent that a substantial number of hunters were spending the night in their trucks, station wagons or cars," (p. 3).

The total expenditure on hunting trips by all hunters in Wisconsin in 1959 came to \$75 million, while expenditure on equipment came to an additional \$57 million. This sum includes "expenditures for boats and boating equipment, trailers and equipment, fishing equipment, and hunting equipment." (p. 6) While this is a broad grouping, the amount spent on equipment illustrates the fact that the manufacturers and retailers of sporting goods received nearly as much economic benefit from participation in a sport as the residents of the area where the sport is practised.

Economic Significance of Hunters in Wisconsin, Cont'd.

Several questionnaires were returned with unsolicited letters attached, offering a variety of suggestions for the improvement of such things as game management. This surprising voluntary response indicates the value of a mailed-questionnaire survey approach to "special interest" groups such as hunters or fishermen. The unsolicited letters from small game hunters partially blamed the decline of their sport on weed spraying and brush clearing along highways which has destroyed much of the cover for small game. Letters from large game hunters complained bitterly of the lack of courtesy on behalf of many hunters and "Everyone shooting everything and looking for horns afterwards."

The socio-economic study of hunters showed that over 55% of 1,617 small and large game hunters responding had family incomes lower than \$6,000 per annum. The exact opposite was true for the 457 out-of-state bow and arrow hunters responding and the 1,994 Wisconsin residents holding "Voluntary Sportsman" licenses--the most expensive type of license available.

Samples of the questionnaires used are appended to this study. They are well-designed and could be used for similar surveys elsewhere.

Bureau of Sport Fisheries and Wildlife, U. S. Department of the Interior. Sport Fishing--Today and Tomorrow. ORRRC Study Report 7. 1962. Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. 130 pages. 65 cents (must accompany order).

Coverage: The objectives of this study are to point out the significance and scope of sport fishery resources in the U. S. A. at present; to estimate in broad terms the probable status of recreational fishing for the years 1976 to 2000; and to suggest alternative policies aimed at adjusting the future supply to the anticipated demand.

Scope: The study discusses sport fishing from several viewpoints:

1. Fishing as a Form of Recreation

This includes a historical synopsis of fishing and the National Surveys of Sport Fishing. It discusses factors influencing the demand for sport fishing, the characteristics of fishing and the importance of changes in public attitudes on fishing.

2. The Status of Fishing Waters in 1960

This section consists of a general discussion of the status of U. S. inland fresh waters, streams and rivers, natural ponds and lakes, man-made reservoirs and coastal waters.

3. Problems of the Supply of Fish

This includes a discussion of physical factors affecting supply. These are competition for other uses of water (e.g., irrigation), floods, droughts, the quality of water and water pollution. It also discusses the natural productivity of water bodies and the effect which various levels of fishing have on the supply of fish.

4. The Management of Sport Fisheries

Here the report makes a historical survey of laws and regulations affecting fisheries management, fish stocking practices and general management policies. It discusses public policies regarding access to fishing waters and the development of fishing resources. A survey of Federal legislation affecting sport fisheries is also included.

5. Fishing in the Future

This section reviews the status of sport fishing for the years 1976 and 2000 by water types, kind of fish, number of fishermen by area, problems of management and areas for future research. A summary outline of the prospects for nine study regions is included. Statistics are given on projected catch per surface acre for fresh water, total number of fishermen, and the total number of fisherman-days.

Fine, I. V., and Werner, E. E., Camping in State Parks and Forests in Wisconsin. Wisconsin Vacation - Recreation Papers, Vol. 1, No. 3, 1960. Bureau of Business Research and Service, School of Commerce, University of Wisconsin, Madison, Wisconsin 53706. 17 pages. Free.

Coverage: Presents methodology used in a personal interview survey of campers in Wisconsin during the summer of 1959. 385 usable interviews were obtained from a "disproportionate sample," which was then weighted to give each campsite an importance in the sample equivalent to its importance in the overall use pattern of the state parks and forests.

Scope: This is a most useful study for a researcher attempting policy-formulation for the provision of campgrounds. It could be readily duplicated elsewhere. A time-series for camper usage of Wisconsin state parks and forests covers the period 1950 through 1959. During this time the number of camper days rose from 143,277 in 1950 to 491,098 in 1959.

It was found that campers came from a relatively small geographical area in and around Wisconsin. 79% of the 385 campers interviewed came from either Wisconsin or Illinois. Over 40% of all campers were aged 14 or under and the general impression was that camping is largely a family activity. The average length of stay was 7.8 days per party. Most of the respondents indicated that they intended to camp again in Wisconsin, but there was a sizeable share who rotated the venue of their annual camping holiday.

The authors report that "the typical camper family has a relatively high income. This would seem to be in direct conflict with the assumption that camping is the 'poor man's vacation activity.'" (p. 8) Slightly over 50% of all respondents had family incomes between \$6,000 and \$9,999 per annum. Many of the respondents indicated that they chose camping for a vacation because it was a preferred form of activity with their children rather than because it was a cheap form of holiday. These findings were supported by the fact that the two largest occupational groupings were professionals and business proprietors.

The expenditures of the campers while camping came to almost \$1,680,000. However, expenditures on camping and related equipment, purchased within the state of Wisconsin, came to a further \$2 million. The average camper party expenditure per trip was \$79.89 or \$176.25 if the cost of equipment is included.

The significance of trailer camping was brought out by this study--some 29.4% of all campers used trailers and a further 8.5% used a tent mounted on a trailer. All of those using trailers reported plans to camp again in 1960.

A surprising 14.6% of all interviewees brought boats, representing about 3,000 of the 20,000 camping parties using Wisconsin state parks and forests in 1959. This indicates that the two activities are often participated in concurrently. A number

of campsites should be provided in places where dual participation is possible at the same site.

Despite the fact that the interviewers observed crowded conditions at many sites, overcrowding was only mentioned by one-third of all interviewees as a problem needing attention. "There seemed to be much greater concern with sanitation, utilities, and services than one assumes the camper is willing to sacrifice in his attempt to get closer to nature." (p. 11)

A well-designed, five page questionnaire is appended to this study. It could readily be used elsewhere and has the advantage of being pretested.

New England Family Campers Association and the Northeast Campground Owners Association. Selected Proceedings of the First Annual Eastern Conference on Camping Areas. February 1965. Gerard A. Harrison, Springfield College, Springfield, Mass. 97 pages. \$3.00.

Coverage: Summary of the proceedings of the first conference on family camping. The conference was meant as an opportunity for camp managers to gather and discuss problems of the design, development and operation of family campgrounds. It had three objectives:

1. To assist those persons interested in starting a private campground.
2. To help those already in the campground business to improve their areas and increase business volume.
3. To seek a closer understanding between state and federal camping area officials, private campground owners, and campers.

Scope: The keynote address, delivered by William R. Failer of the Bureau of Outdoor Recreation's Northeast Regional Office, contains a good discussion of the future potential of camping as a recreational activity. Mr. Failer also discusses some of the reasons why people camp. Much of the report is devoted to everyday problems in the camp manager's and camp owner's life. These sections are of less interest to the generalist researcher than the keynote address. The report contains a brief discussion of campers' preferences.

Note: A report on the Second Annual Eastern Conference, held in February 1966, is obtainable from the same source at the same price. However, it is of considerably less interest to the researcher than the First Annual Conference Proceedings. For this reason it is not reviewed in this volume.

New Hampshire State Planning Project. The Privately-Owned Campgrounds of New Hampshire (Report No. 7 of The New Hampshire State Planning Project). 1965. New Hampshire State Planning Project, State Offices, Concord, N.H. 62 pages. Free.

Coverage: Reports results of a descriptive survey of the management and "customers" of 108 of New Hampshire's privately-owned campgrounds, and makes recommendations for coordinated planning and information programs for campground proprietors.

Scope: Three interviewers visited the owners of 108 private campgrounds during June and July, 1964. After conducting each interview, the interviewer left a supply of mail-back user questionnaires in a display carton for distribution to campers. It is recognized that the 978 usable returns to this questionnaire do not represent a satisfactory sample of campers.

Information from the camper survey is tabulated under the following heads:

- Motives for camping, and reasons for preferring private campgrounds
- Frequency of camping trips per year by motivation for camping and by type of campground (public or private) preferred
- Home address of campers
- Percentage of respondents having camped at other areas, by campground type preferred, and by motive for camping
- Occupation of campers by motive for camping
- Age distribution of camper groups by motivation for camping
- Visitors' images (attraction, level of development, management, appearance) of public and private campgrounds, by motive for camping

Findings of the management survey are reported under the following heads:

- Number and location of private campgrounds, growth since 1955
- Other occupations, education, reason for entry into camping business of proprietors
- Number of employees and seasonality of operation
- Volume of visitors, percentage capacity used, and average fee charged, by region
- Size and sources of investment in campground facilities
- Plans for future expansion, by region, forecasts of demand, adequacy of present facilities to meet

future demand

Liability insurance coverage, use of technical help
in planning and operation

Description of campers as seen by the owners

Suggested amount of a "fair daily camping fee" for
the average family, by region.

SECTION 8

DATA SOURCES AND GENERAL INFORMATION

Outdoor Recreation Resources Review Commission. Outdoor Recreation for America.

Bureau of Labor Statistics and A. J. Goldenthal. Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure, and Transportation.

L. J. Crampon. Travel Trends in Twenty-Four Western States.

Federal Reserve Bank of Boston. New England Tourist Attractions Report.

Federal Reserve Bank of Boston. New England Vacation Business Report.

Federal Reserve Bank of Boston. Sources of Guests - New England Vacation Lodging Places.

Outdoor Recreation Resources Review Commission. Outdoor Recreation for America, 1962. Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. 246 pages. \$2.50 (must accompany order).

Coverage: This report to the President and The Congress briefly outlines the supply and demand conditions for recreation space and associated facilities. They recommend in some detail the creation of:

A national outdoor recreation policy,

Guidelines for the management of outdoor recreation resources,

Expansion, modification and intensification of present programs to meet increasing needs,

Establishment of a Bureau of Outdoor Recreation in the Federal Government,

A Federal grants-in-aid program to States.

Scope: Specific organizational and policy suggestions are made for Federal, State and local government coordination in the planning of outdoor recreation facilities. This coordination was to apply to the acquisition, protection and funding of outdoor recreation facilities and the provision of access to them. Special emphasis is placed on water-oriented recreation.

In order to provide adequate recreation facilities near metropolitan centers, preserve unspoiled areas, and to eliminate non-conforming development, it is recommended that outdoor recreation resources be classified into the following six categories:

High-density recreation areas

General outdoor recreation areas

Natural environment areas

Unique national areas

Primitive areas

Historic and Cultural sites

Forty-one supply and demand tables are culled from some of the 27 ORRRC study reports which ORRRC commissioned. These are listed and described in an appendix.

U. S. Department of Labor, National Planning Association, Bureau of Labor Statistics and A. J. Goldenthal. Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure, and Transportation. ORRRC Study Report 23. 1962. Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. 424 pages. \$2.00 (must accompany order).

Coverage: This volume contains a set of four studies which project:

1. The size and distributin of the American people;
2. Their income distribution;
3. The amounts of their leisure; and
4. Their mobility.

These projections are made to the years 1976 and 2000. They are made at both the state and national levels, and for certain regions.

More than one-half of its pages are devoted to statistical tables. Included are several short chapters discussing the methodology of the various projections. One and one-half pages are devoted to the "implications for outdoor recreation facilities" of future travel systems.

Scope: An abbreviated table of contents is probably the best way to indicate the scope of this volume:

- I. Demographic projections to the years 1976 and 2000
 - Total U.S. population
 - State and regional distribution
 - Households and families
 - Urban and metropolitan areas
- II. Estimates of the decrease in hours worked per week, 1960-2000
- III. The future of travel in the U.S.
 - Common carrier air travel
 - User-operated vehicle systems
 - Intercity bus and rail travel
- IV. Economic Projections for the years 1976 and 2000
 - Gross national product
 - Labor and Capital Input
 - Government expenditure
 - Investment and saving

V. Industry output, employment, and productivity in the
years 1976 and 2000.

Manufacturing

Mining

Non-industrial sectors

VI. Economic projections by states for the years 1976 and 2000

Manufacturing

Agriculture and mining

Non-commodity industries

Personal incomes

Crampon, L. J. Travel Trends in Twenty-Four Western States. 1964.
Western Council for Travel Research, P. O. Box 8066, Foothill
Station, Salt Lake City, Utah. 25 pages. \$1.50.

Coverage: Assembles the available statistics on travel and tourism
in those states west of the Mississippi River.

Scope: The information presented was obtained from numerous
agencies and organizations, which are identified in all
the tables by means of 70 footnote numbers. No effort
was made to confirm the accuracy or pass judgment on
any of these data. "But we have reason", says Mr.
Crampon, "to question the comparability of some of
these statistics." Data are tabulated under the follow-
ing 21 headings, by state:

Total visits to National Park Service Areas, 1950-63
Overnight visits to National Park Service areas, 1960-63
Camper days in National Park Service areas, 1960-63
Total visits to State parks and similar areas, 1950-63
Overnight visits to State parks and related areas,
1960-63
Total recreational visits to National Forests, 1950-63
Recreational visits to campgrounds in National Forests,
1960-63
Average annual employment in hotels and other lodging
places, 1955-63
Wage and salary disbursements in hotels and other
lodging places, 1950-63
Taxable sales of motels, hotels and other lodging
places, 1955-63
Estimated visitor or tourist expenditures, 1950-63
Estimated number of out-of-state visitors, all types,
1960-63
Estimated number of out-of-state pleasure visitors,
1960-63
Estimated number of out-of-state motorists entering
state, 1960-63
Number of out-of-state passenger cars entering state,
1960-63
Origin of visitors to Western States (percentage of
total out-of-state visitors from each origin state)
Average length of stay and size of party
Average total expenditures of visitors in state
Average expenditure per person per day by type of
expenditure
Percentage of visitors using various types of
accommodations
Percentage of visitors using various modes of
transportation.

Federal Reserve Bank of Boston. New England Tourist Attractions Report.
1959 to the present(monthly from July through October). Back
numbers out of print, on file at Federal Reserve Bank of Boston,
30 Pearl Street, Boston, Mass. Current issues available at same
address. Free.

Coverage: Monthly reports of a sample survey of tourist attrac-
tions, both privately and publicly operated, in the
six New England states. Reports percentage change in
number of visitors over the previous year by type of
attraction and by state. In contrast with the other
Federal Reserve Bank of Boston survey reports, this one
does not report a breakdown by vacation region within
the individual states. It includes comments by owners
and operators of tourist attractions.

Scope: The raw percentage change figures are published each
month; no annual index is calculated, although one
could easily be reconstructed from the published
reports.

The ten types of attractions for which figures are
reported are:

- Museums and galleries
- Parks and forests
- Information booths
- Historic sites
- Wildlife preserves, animal farms
- Entertainment and amusement parks
- Summer theatres
- Scenic interest locations
- Local rather than historic attractions
- Miscellaneous attractions.

Because the sample size and composition varies widely
in most of the attraction categories from month to
month, there are problems of statistical reliability
in all but the "parks and forests" and "historic sites"
categories. These are the categories most often owned
and operated by public agencies.

The use of tourist attraction census information as a
measure of tourist activity should be approached
cautiously. Since any particular tourist can and often
does visit many attractions daily, there is a serious
problem of double-counting. Such figures also offer
little help in assessing the volume of tourist expendi-
tures, and it is not practical to determine which of
the many thousands of guests are local day-trippers, and
which overnight vacationers, at each of the many tourist
attractions in a particular state or region.

Federal Reserve Bank of Boston. New England Vacation Business Report. 1947 to 1964 (monthly during summer and winter tourist seasons). Out of print. Copies are on file at Federal Reserve Bank of Boston, 30 Pearl Street, Boston, Mass.

Coverage: Monthly reports of a sample survey of lodging proprietors in the six New England states, showing percentage change in occupancy over the previous year for each of the "vacation regions" within the states, by type of accommodation (hotels, inns, and other tourist accommodations such as motels and cabins). Also includes comments on business conditions by lodging proprietors.

Scope: The survey questionnaire asked for the month's count of guest nights and the number of guest nights for the same month in the previous year. Periodically respondents were asked on the back of the form if there had been any change in their capacity or type of operation. In the early years of the survey the percentage change in receipts was requested as well as change in capacity, but the former was dropped, perhaps due to reluctance to report on the part of proprietors. The raw percentage change figures were calculated by adding the reported guest nights. These were published each month.

The survey was begun in 1947, and by 1950 it was possible to begin an annual index on the basis of these surveys. The percentage change in occupancy figures were indexed with 1950 = 100, and reported for New England as a whole and the individual states in a "winter", "summer", and "combined" (weighted) format.

Because survey reporting was strictly voluntary on the part of respondents, there was no way to ensure accuracy of the reports or comparability with previous figures. The number and identity of the respondents changed from month to month, and in some areas the sample size was extremely small. The validity of the survey was impaired by a lag of up to a year before new lodging facilities were included in the sample. Because of the rapid changes that occur in the lodging business, and the relatively short life of facilities, there is reason to believe that the sample was unrepresentative of the lodging business as a whole. The rate of growth of the lodging business implicit in the survey results and the Vacation Business Index is much lower than the (deflated for price increase) rate of growth of lodging-place receipts reported in the U.S. Bureau of Census Census of Business for the same period 1954 - 1963.

The Federal Reserve Bank's efforts to increase the response rate and thereby improve the survey's statistical reliability were largely unavailing. The published reports came out too late to be of much use to the lodging proprietors. In 1963, the Federal Reserve Bank attempted to rectify this by publishing the report weekly, but the response rate continued to decline. The series was permanently discontinued with the Summer, 1964 summary report.

Federal Reserve Bank of Boston. Sources of Guests - New England Vacation Lodging Places. August 1956, February and August 1957, July 1958, July 1960, February 1961 (last issue). Back numbers on file at Federal Reserve Bank of Boston, 30 Pearl Street, Boston, Mass. Some copies available on order. Free.

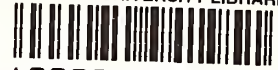
Coverage: Reports the origin of guests at New England lodging places for the selected months by state and province as percentages of total guests, for each New England state and vacation region. It also includes graphs showing the month's pattern of guest occupancy by state (total guests per day) and origin of New England visitors (percentages of guests per day originating in United States regions and Canada).

Scope: The data for all these surveys were collected by the Federal Reserve Bank from the respondents to their now-defunct New England Vacation Business Report. Consequently, the Sources of Guests reports share many of the problems of comparability of sample, etc., of that series.

It should be emphasized that the figures in the Sources of Guests reports only cover persons who stay in commercial lodgings. Many tourists and non-pleasure travelers, however, stay in other types of accommodations. Therefore, these reports cannot be used as a basis for making general observations on the origin of the total universe of travelers or overnight visitors.

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